

ACTIVATE TECHNOLOGY & MEDIA OUTLOOK 2022



14 Takeaways from the Activate Technology & Media Outlook 2022

Consumer Spend: Increased consumer time spent with technology and media has been sustained coming out of the pandemic. As the entire growth curve has shifted upwards, more consumer time will lead to new opportunities to grow and build businesses.

Cryptocurrency: There will be a massive runway ahead as the number of consumers trading crypto will double in the next 12 months. Consumers will move from buying cryptocurrency for investment to using cryptocurrencies for payments and transfers. Although Bitcoin and Ethereum dominate, innovation will take place in Altcoins. Crypto will power a broad set of sectors including eCommerce, video gaming, data, and NFTs.

NFTs: NFTs create a unique value proposition for owners of digital assets, with a broad set of applications. Buying, collecting, and trading non-fungible tokens will become a mainstream behavior. Many industries are creating NFTs, including art, fashion, sports, video games, and consumer products. Every technology and media company will need an NFT strategy.

Video Games: Video games are the next technology paradigm, leading to the metaverse. Most digital activities (e.g. search, social, shopping, events, banking) will increasingly take place inside of video games. The major technology platforms have recognized the importance of video games and will build out their presence in the gaming stack. We expect a wave of mergers in the sector.

Metaverse: Games are the most viable path to the metaverse as they already have many of the foundational elements (e.g. social and non-game experiences, users as creators, VR/AR functionality, in-game economies). Pursuit of the metaverse will drive technology and media companies to make extensive technology and experience investments, while impacting the full set of digital and physical activities into the future.

14 Takeaways from the Activate Technology & Media Outlook 2022

Super Users: Not all users are equal in terms of focus for technology and media companies. Super Users – 26% of all users – account for the majority of time and money spent on eCommerce, VR, music, and video games, and super-serving them will be critical to drive growth.

eCommerce: New technologies are breaking down barriers for even the most expensive and complicated categories to move online. By 2025, 10% to 15% of all automobiles will be sold online, adding over \$150B a year to eCommerce revenues. Other expensive categories, such as jewelry and furniture, will also accelerate their moves online.

Video: Social and streaming growth will reshape the video landscape. Competition among streaming services will intensify as the average subscriber will pay for almost six services by 2025 and 47M homes in the U.S. will have broadband without Pay TV.

Sports and Sports Tech: Following the pandemic, fans are returning to sports, but their modes of experiencing sports will now be different, as an even greater number of games move to streaming platforms. New rights deals for 2022-23 will increase the availability of games on streaming. Sports technology innovation will deliver new digital sports experiences and deepen fan engagement.

Sports Betting and iGaming: Sports betting and iGaming will bring considerable new revenues to technology and media companies, as legalization continues to spread to more states. Betting operators will forge partnerships with media companies, while technology innovators enter the space. iGaming will boom in the U.S.

14 Takeaways from the Activate Technology & Media Outlook 2022

Esports: By 2025, over 700M people will watch esports, up from 550M today. Most importantly, esports will be the gateway to a full set of technology and media experiences, including VR/AR, cryptocurrency, podcasts, sports gambling, and video games.

Audio: Audio will continue to be one of the fastest growing media behaviors, driven by digital audio. Consumers are increasing the number of music services they use, both paid and free. TikTok's impact on music discovery will be profound. Social/live audio will become a mainstream behavior and social platforms and streaming services will follow Clubhouse's lead. Podcasts will grow to reach 166M users in the U.S.

Digital Consumer Finance: Digital consumer finance is at the inflection point as investing, borrowing, and online-only payment methods will become dominant digital behaviors. Consumers will increasingly see financial solutions embedded in consumer goods, retail, and technology offerings.

Data Solutions and Enterprise Automation: A set of new companies, delivering infrastructure, tools, and applications, will enable all enterprises to operate and innovate as if they were major technology companies.

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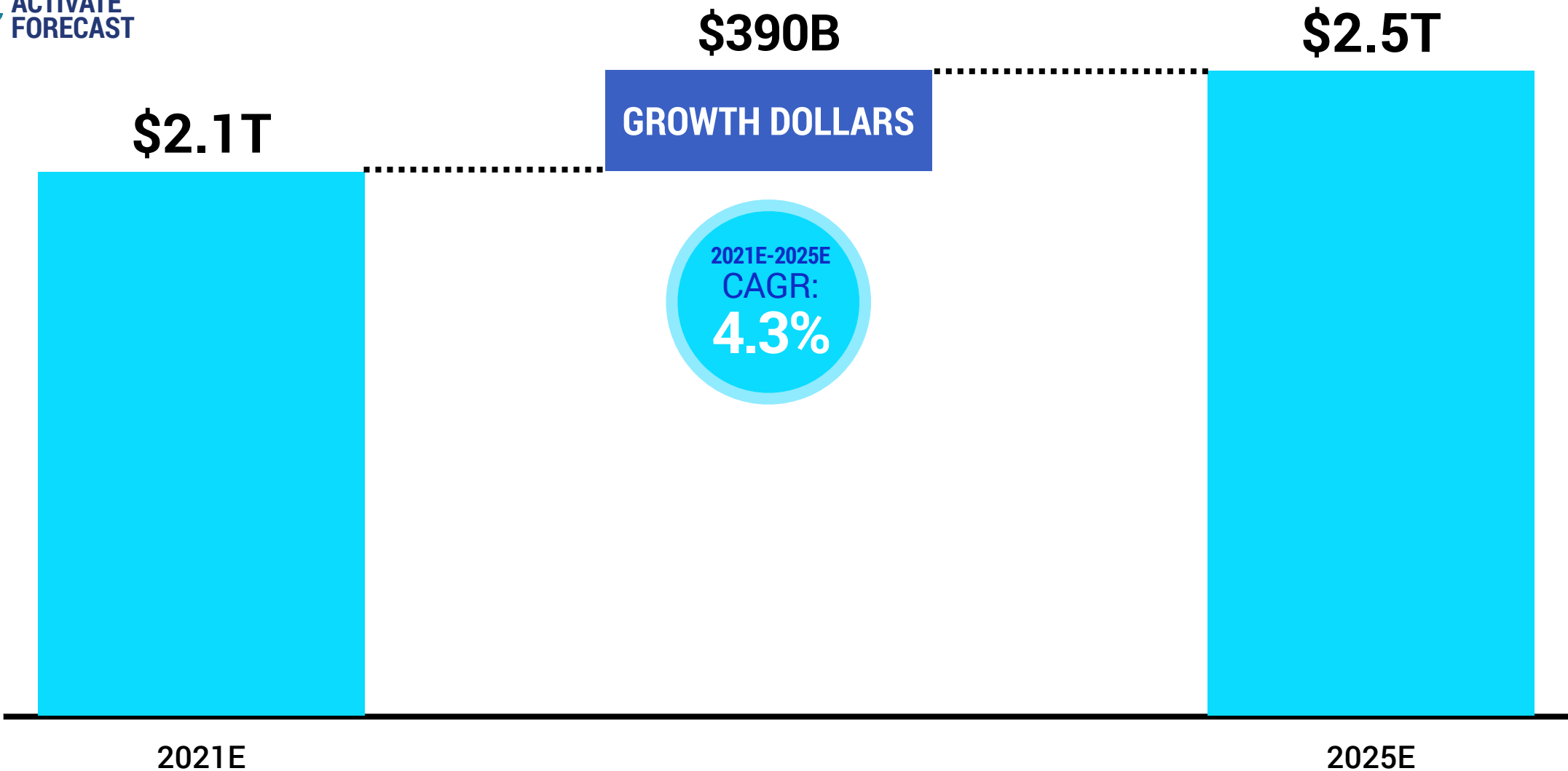
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We forecast significant growth ahead for global internet and media businesses, which will add almost \$400B growth dollars between 2021 and 2025

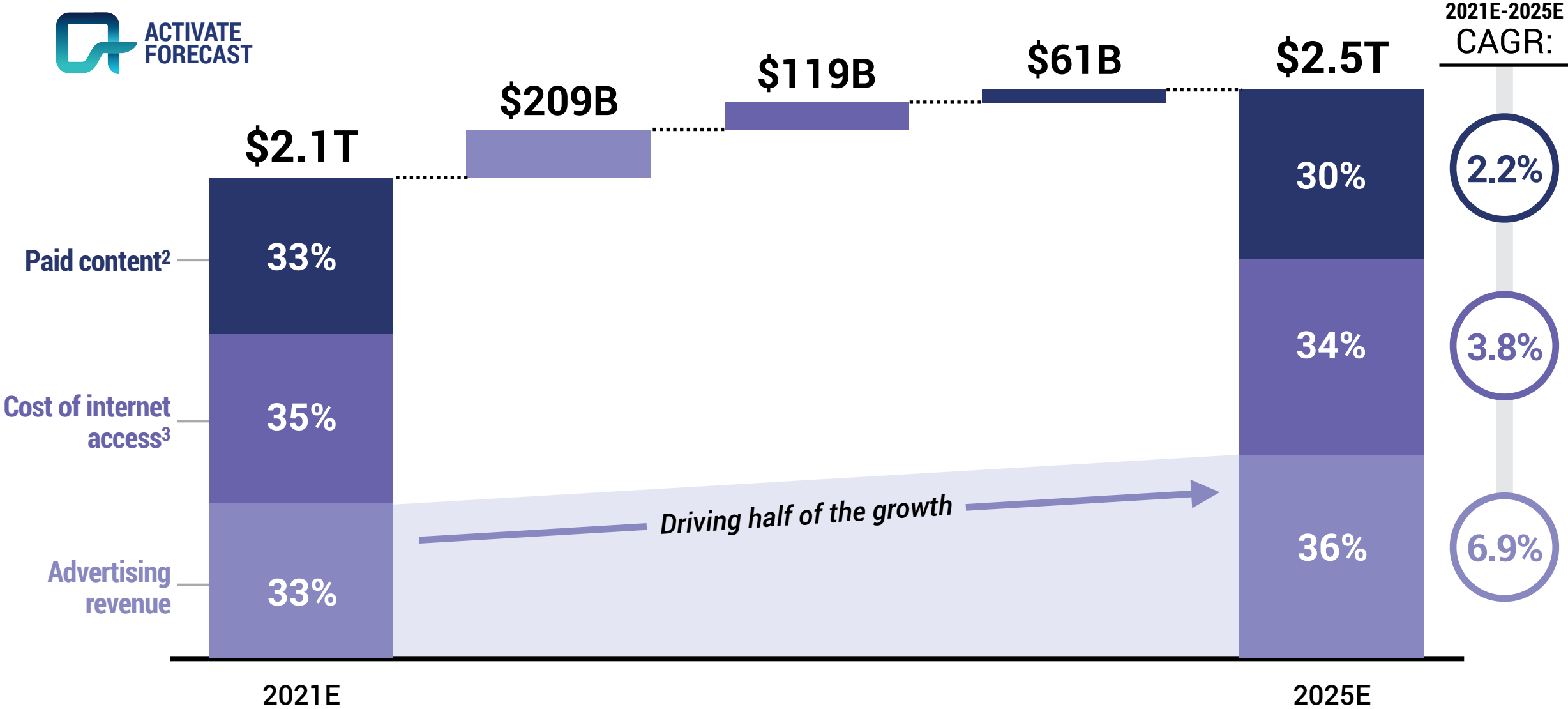
INTERNET AND MEDIA REVENUES¹, GLOBAL, 2021E VS. 2025E, USD



1. "Internet and media revenues" include radio subscription and licensing fees, recorded music, magazine publishing, newspaper publishing, video games, filmed entertainment, book publishing, TV subscription and licensing fees, internet access, digital advertising, and traditional advertising on these platforms.
Sources: Activate analysis, Dentsu International, eMarketer, GroupM, IBISWorld, Newzoo, Omdia, PricewaterhouseCoopers, Statista, Zenith Media

Global advertising will be the primary driver of growth

INTERNET AND MEDIA REVENUE GROWTH BY SEGMENT¹, GLOBAL, 2021E VS. 2025E, USD



1. "Internet and media revenues" include radio subscription and licensing fees, recorded music, magazine publishing, newspaper publishing, video games, filmed entertainment, book publishing, TV subscription and licensing fees, internet access, digital advertising, and traditional advertising on these platforms. Figures do not sum due to rounding. 2. "Paid content" includes radio subscription and licensing fees, recorded music, magazine publishing, book publishing, newspaper publishing, video games, TV subscription and licensing fees, and filmed entertainment. 3. "Internet access" includes fixed broadband, wireless, and mobile internet access.
Sources: Activate analysis, Dentsu International, eMarketer, GroupM, IBISWorld, Newzoo, Omdia, PricewaterhouseCoopers, Statista, Zenith Media

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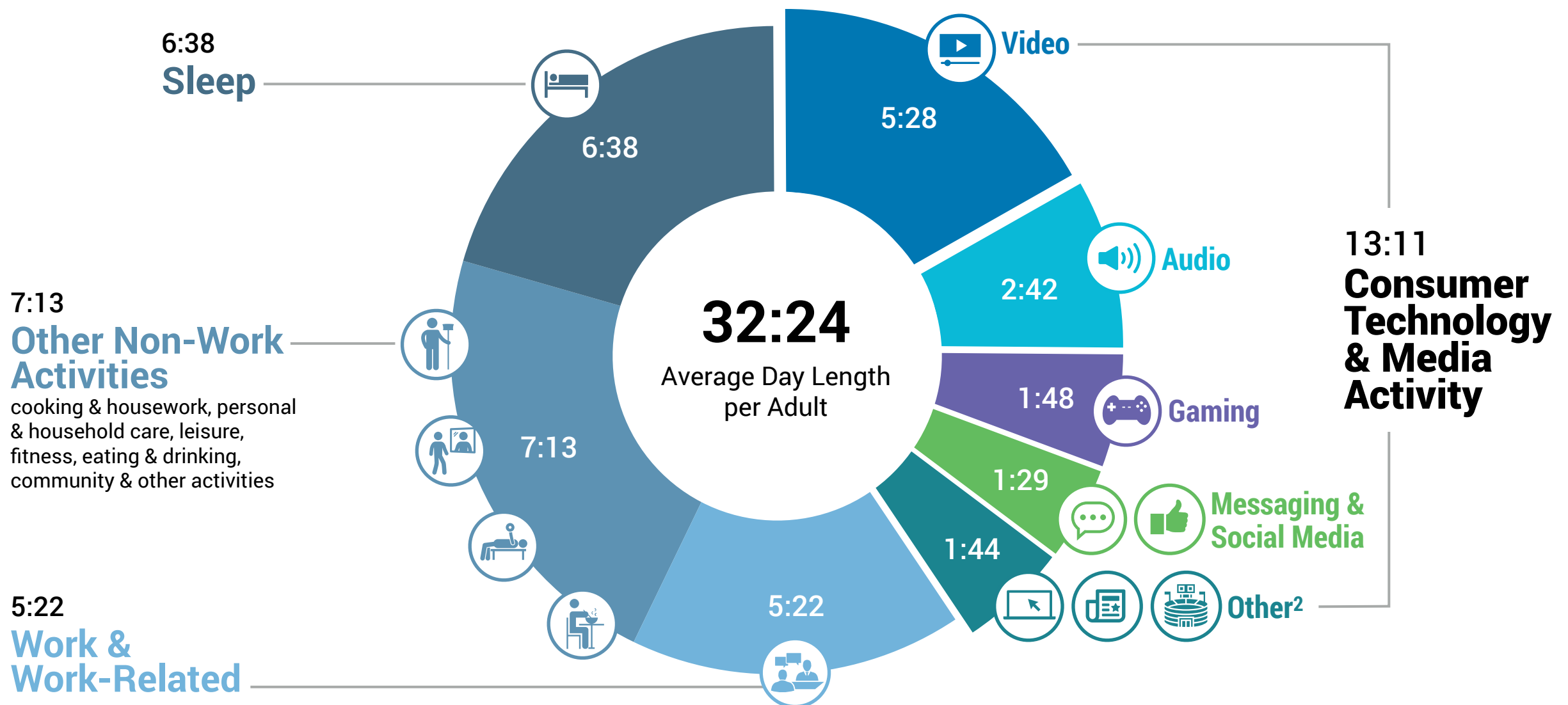
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Activate's Attention Clock: Our analysis of consumer technology and media activity shows that multitasking leads to a 32-hour day for the average American; over 13 hours are spent using technology and media



AVERAGE DAY BY ACTIVITY PER ADULT AGED 18+¹, U.S., 2020, HOURS:MINUTES



1. Behaviors averaged over 7 days. 2. "Other" includes media activities outside of listed categories, such as browsing websites, reading, and attending live events.

Sources: Activate analysis, Activate 2021 Consumer Technology & Media Research Study (n = 4,018), AudienceNet, CareerBuilder, Edison Research, eMarketer, Gallup, GWI, Interactive Advertising Bureau, National Sleep Foundation, Nielsen, Pew Research Center, PricewaterhouseCoopers, U.S. Bureau of Labor Statistics, YouGov

Video – at 5.5 hours a day – continues to dominate consumers’ time spent with technology and media



AVERAGE DAILY TECHNOLOGY AND MEDIA ATTENTION PER ADULT AGED 18+¹, U.S., 2020, 15-MINUTE INTERVALS

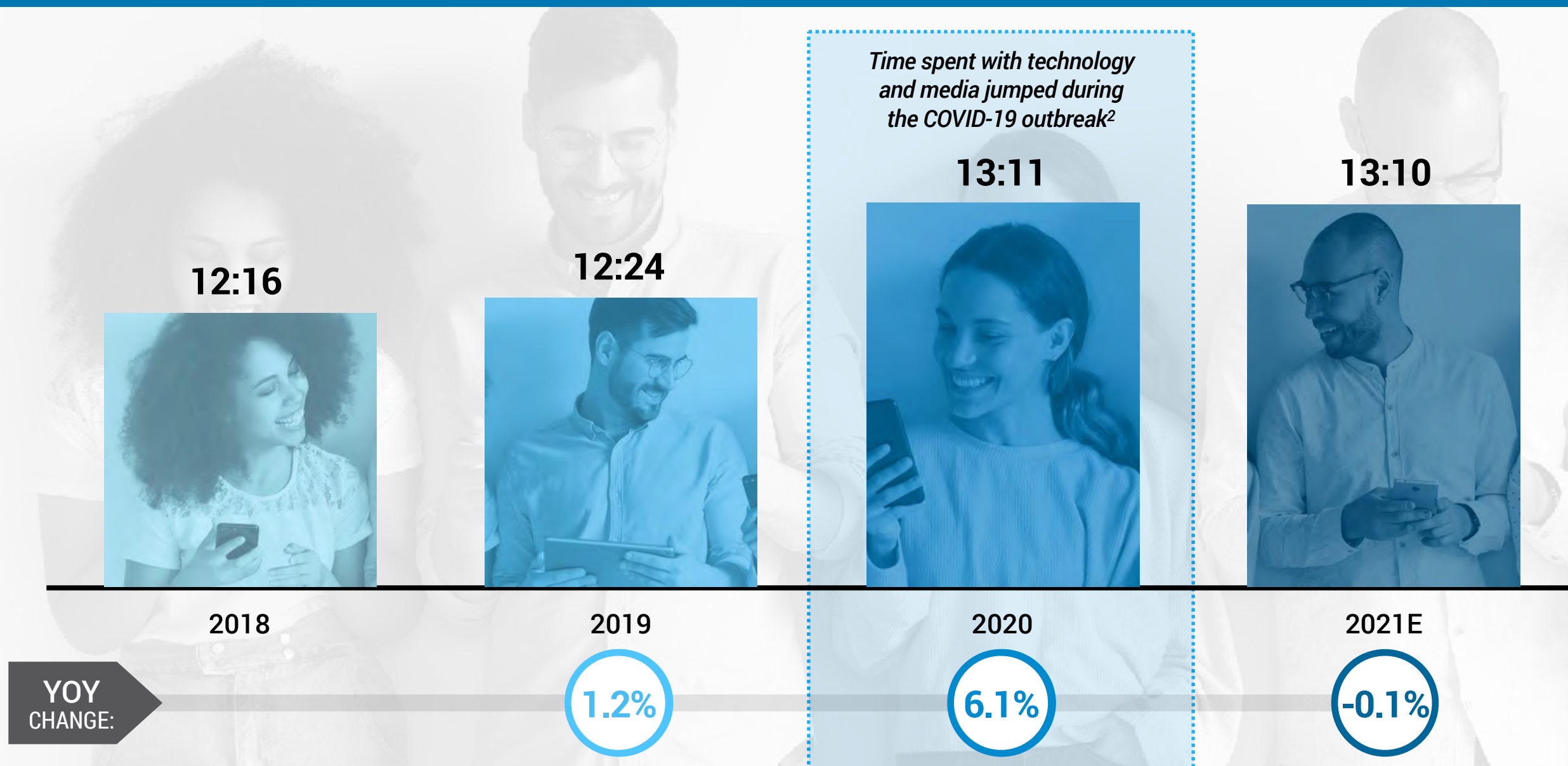
An average 13-hour technology and media day in 15-minute intervals



1. Behaviors averaged over 7 days. 2. “Other” includes media activities outside of the listed categories, such as browsing websites, reading, and attending live events.
Sources: Activate analysis, Activate 2021 Consumer Technology & Media Research Study (n = 4,018), AudienceNet, Edison Research, eMarketer, GWI, Music Business Association, Nielsen, Pew Research Center, PricewaterhouseCoopers, U.S. Bureau of Labor Statistics

During the COVID-19 outbreak, consumers significantly increased their time with technology and media, adding over 45 minutes a day; we expect that this growth will be largely sustained

AVERAGE DAILY TECHNOLOGY AND MEDIA ATTENTION PER ADULT AGED 18+¹, U.S., 2018-2021E, HOURS:MINUTES

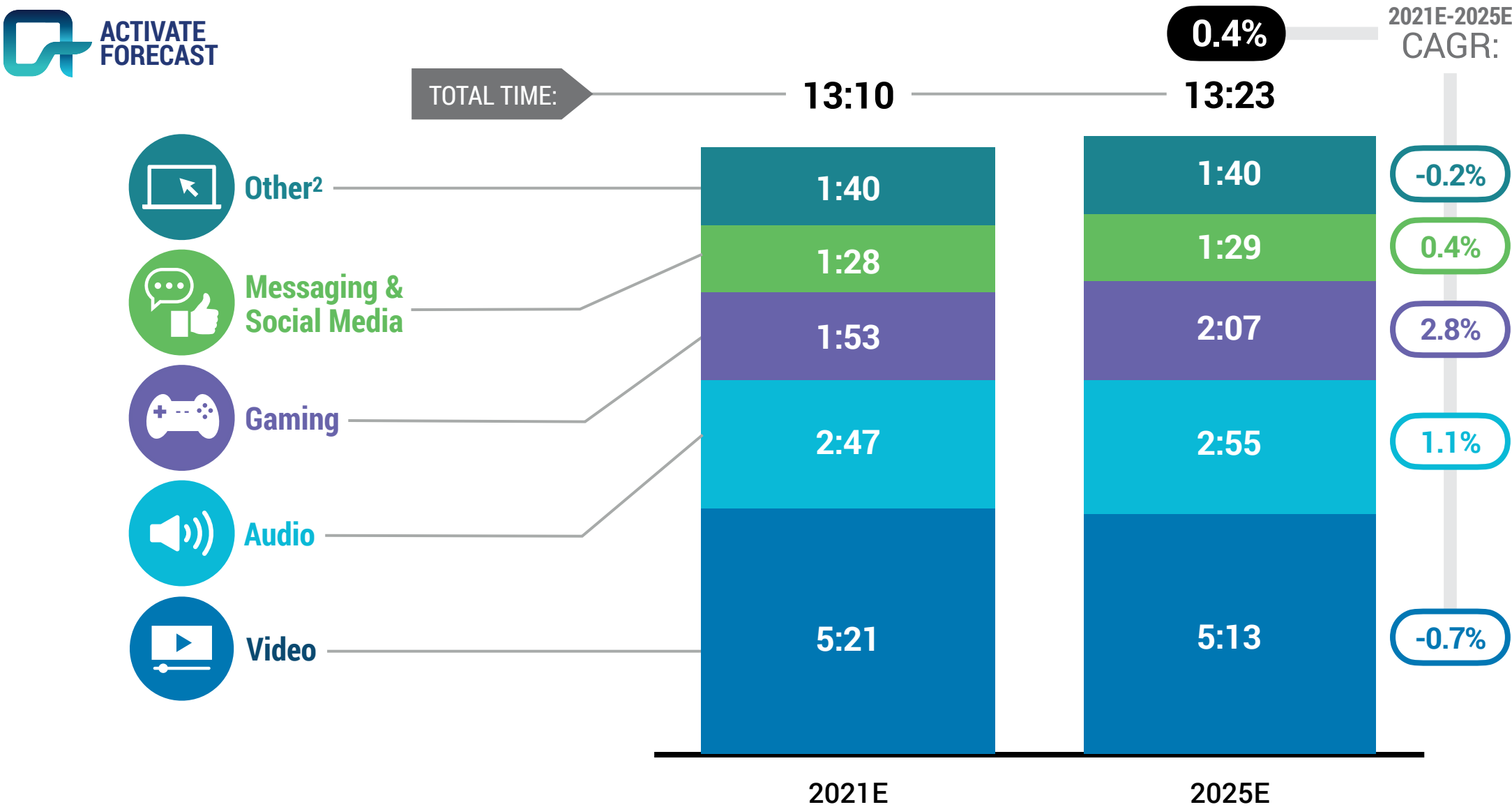


1. Behaviors averaged over 7 days. 2. "During the COVID-19 outbreak" refers to the period since the start of the COVID-19 outbreak and subsequent social distancing measures (i.e. since Mar. 2020).

Sources: Activate analysis, Activate 2021 Consumer Technology & Media Research Study (n = 4,018), AudienceNet, Edison Research, eMarketer, GWI, Music Business Association, Nielsen, Pew Research Center, PricewaterhouseCoopers, U.S. Bureau of Labor Statistics

We forecast that gaming and audio will together add over 20 minutes a day of user time and attention over the next four years

AVERAGE DAILY TECHNOLOGY AND MEDIA ATTENTION PER ADULT AGED 18+¹, U.S., 2021E VS. 2025E, HOURS:MINUTES



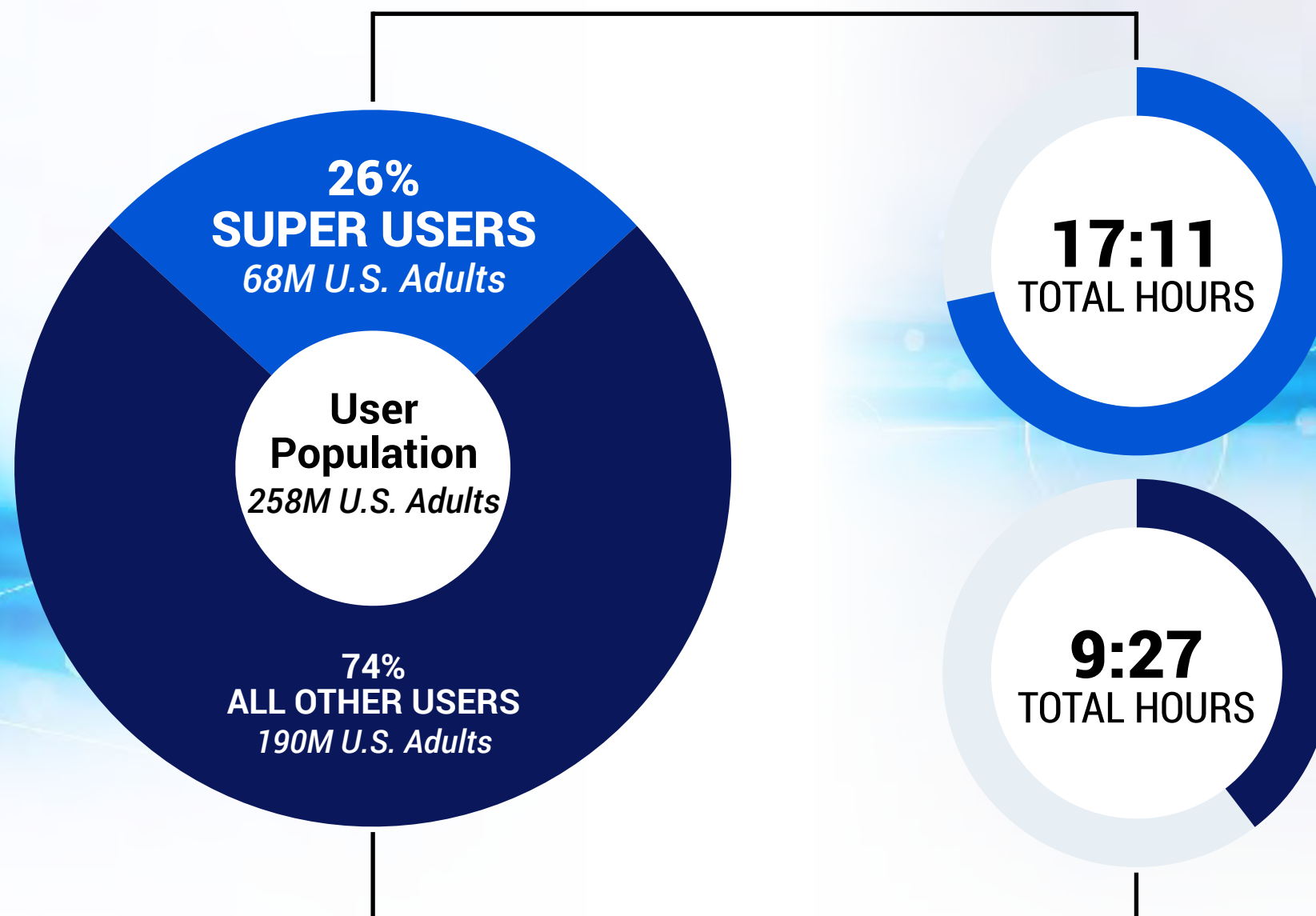
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Sources: Activate analysis, Activate 2021 Consumer Technology & Media Research Study (n = 4,018), AudienceNet, Edison Research, eMarketer, GWI, Music Business Association, Nielsen, Pew Research Center, PricewaterhouseCoopers, U.S. Bureau of Labor Statistics

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Our consumer research shows that Super Users spend over 7 more hours per day consuming technology and media than all other users

AVERAGE DAILY TIME SPENT WITH MEDIA PER USER¹, U.S., 2021E, % ADULTS AGED 18+ / HOURS:MINUTES



1. Includes time spent watching video, playing video games, listening to music, listening to podcasts, and using messaging / social media services. Does not account for multitasking.

Sources: Activate analysis, Activate 2021 Consumer Technology & Media Research Study (n = 4,018), AudienceNet, Edison Research, eMarketer, GWI, Music Business Association, Nielsen, Pew Research Center, PricewaterhouseCoopers, U.S. Bureau of Labor Statistics

Time: Super Users spend significantly more time with media – across all formats – than all other users

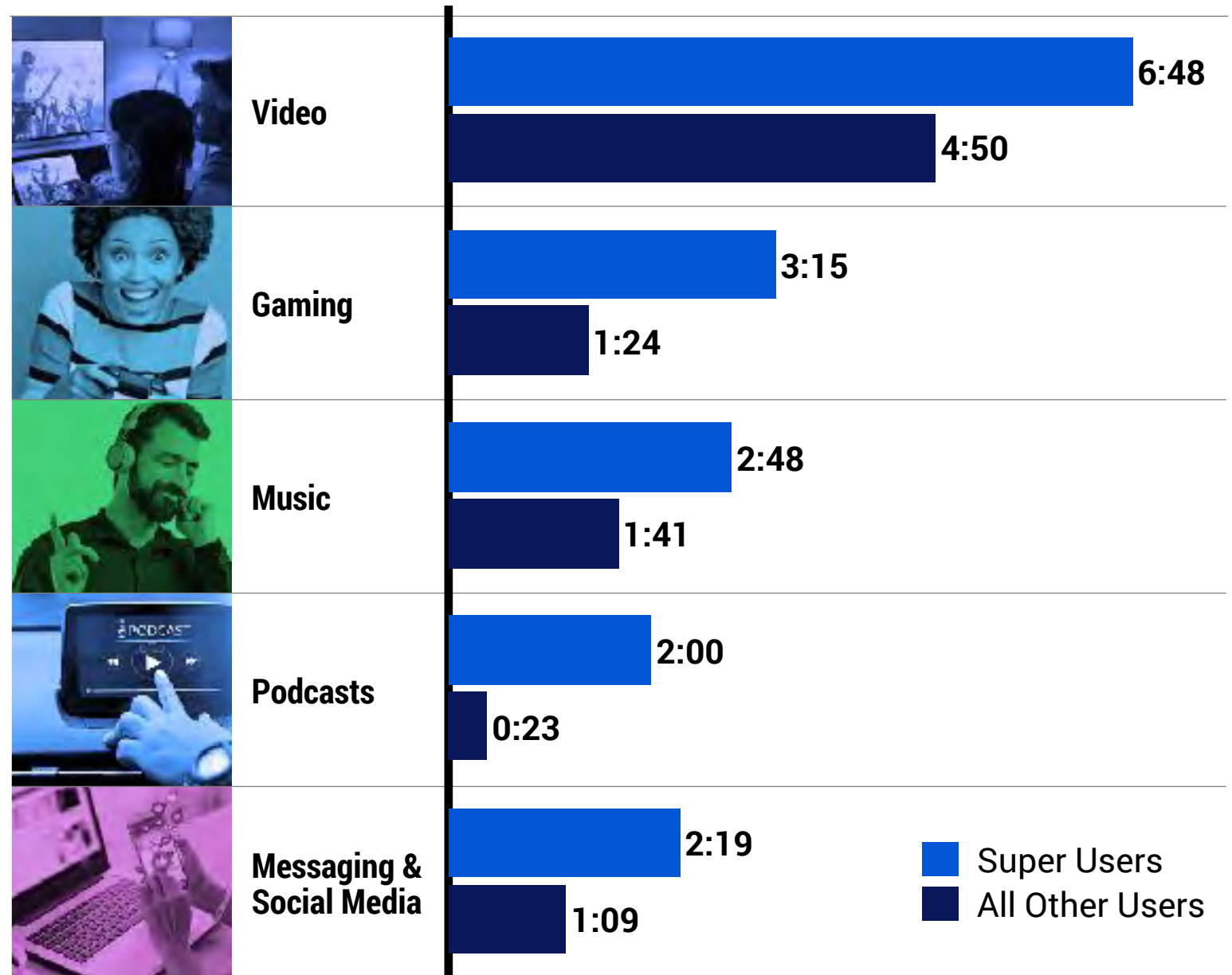
AVERAGE DAILY TIME SPENT PER USER BY MEDIA TYPE, U.S., 2021E, HOURS:MINUTES

Super Users

17:11
Total Hours¹

All Other Users

9:27
Total Hours¹



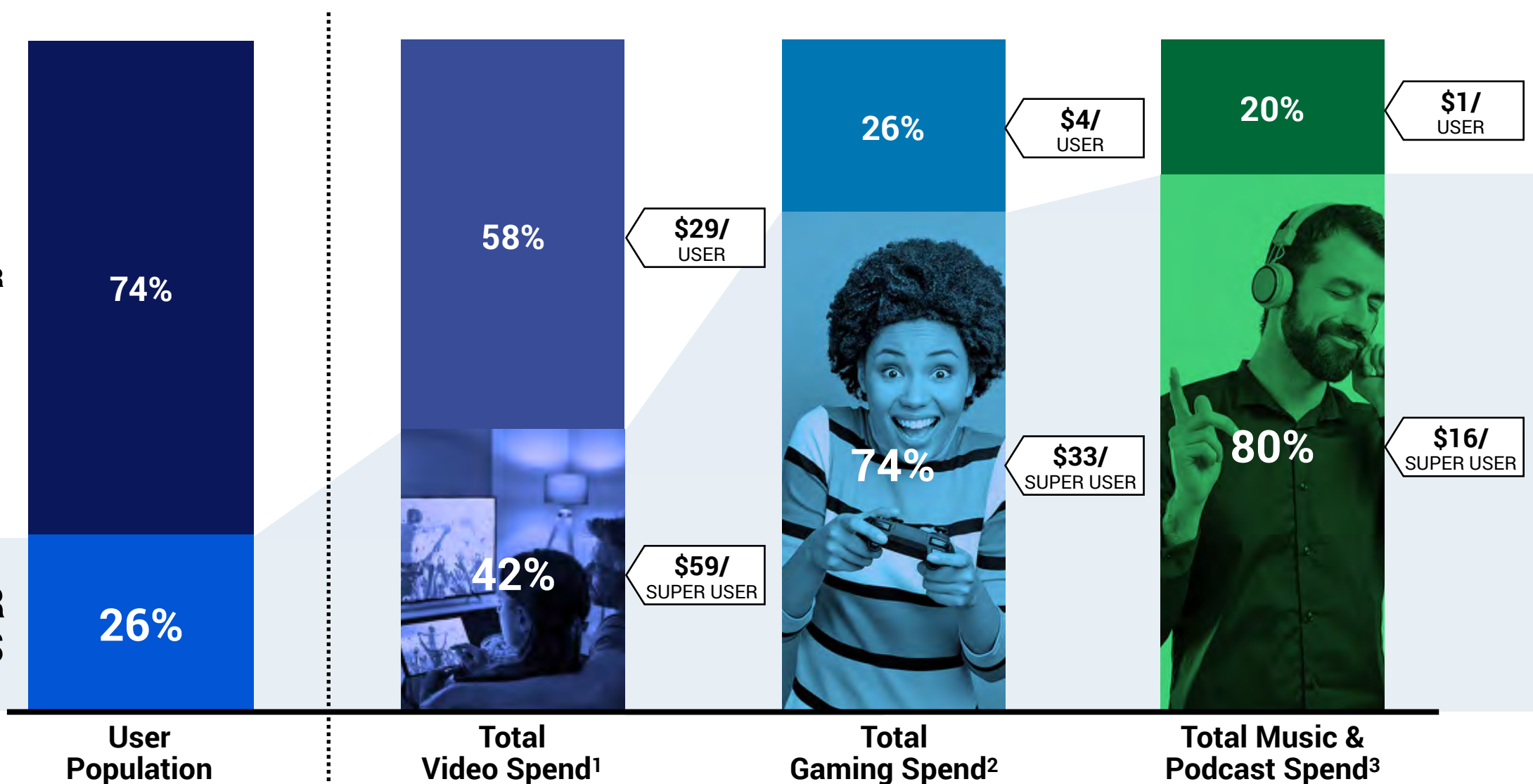
Super Users consistently spend more dollars on technology and media than all other users; in gaming and audio, Super Users account for the vast majority of all spend

MONTHLY DOLLAR SPEND BY MEDIA TYPE,
U.S., 2021E, % ADULTS AGED 18+ / % TOTAL SPEND BY MEDIA TYPE / USD PER USER



ALL OTHER
USERS

SUPER
USERS

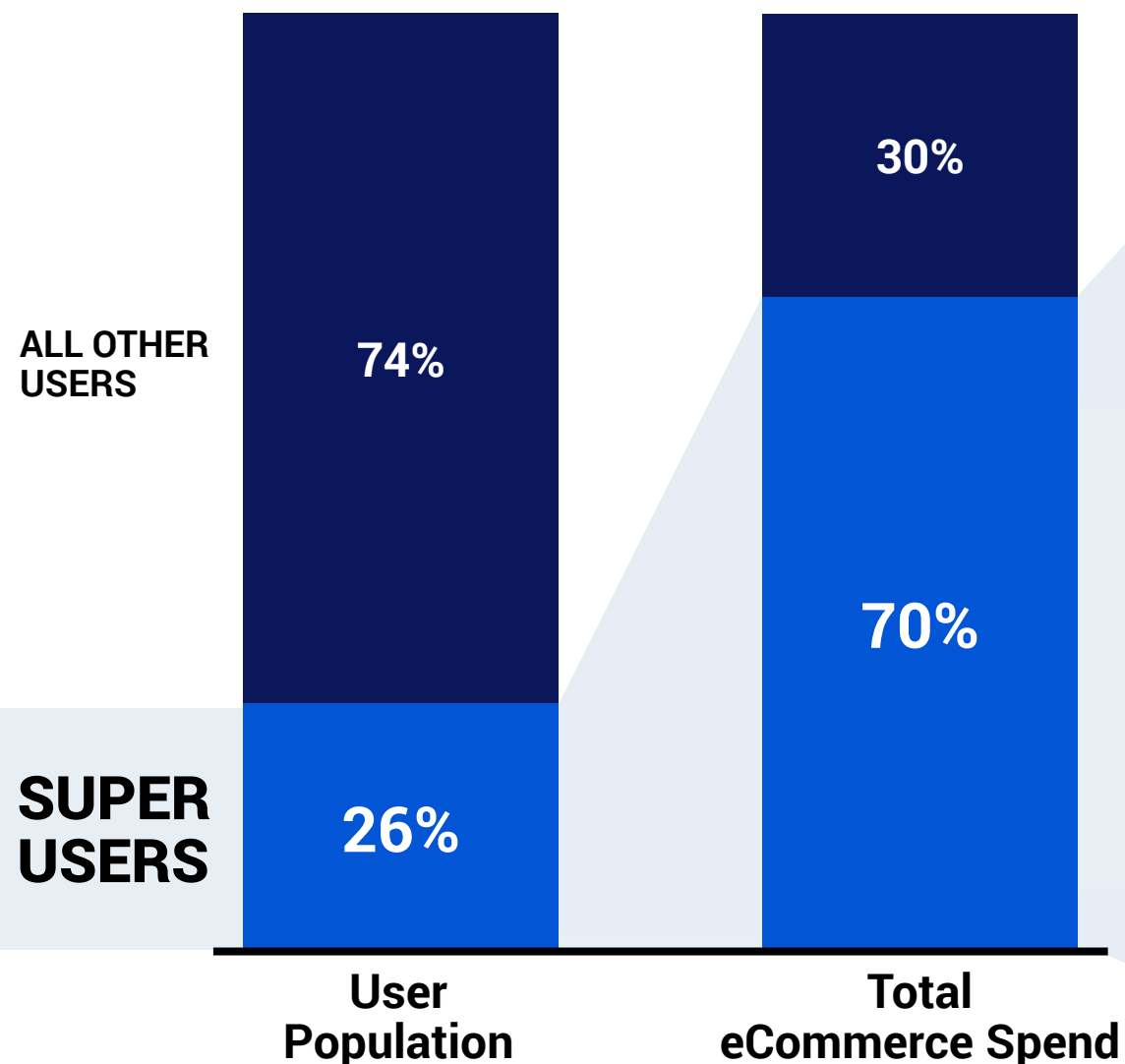


1. Includes money spent on all videos and video services, including traditional/virtual Pay TV, video streaming subscription services, and from video stores / rental services. 2. Includes money spent on video games and other video gaming purchases (e.g. in-app purchases) across all devices. 3. Includes money spent on music, music services, podcasts, and podcast services (excluding donations).

Sources: Activate analysis, Activate 2021 Consumer Technology & Media Research Study (n = 4,018), BMO Capital Markets, eMarketer, Newzoo, PricewaterhouseCoopers, U.S. Census Bureau

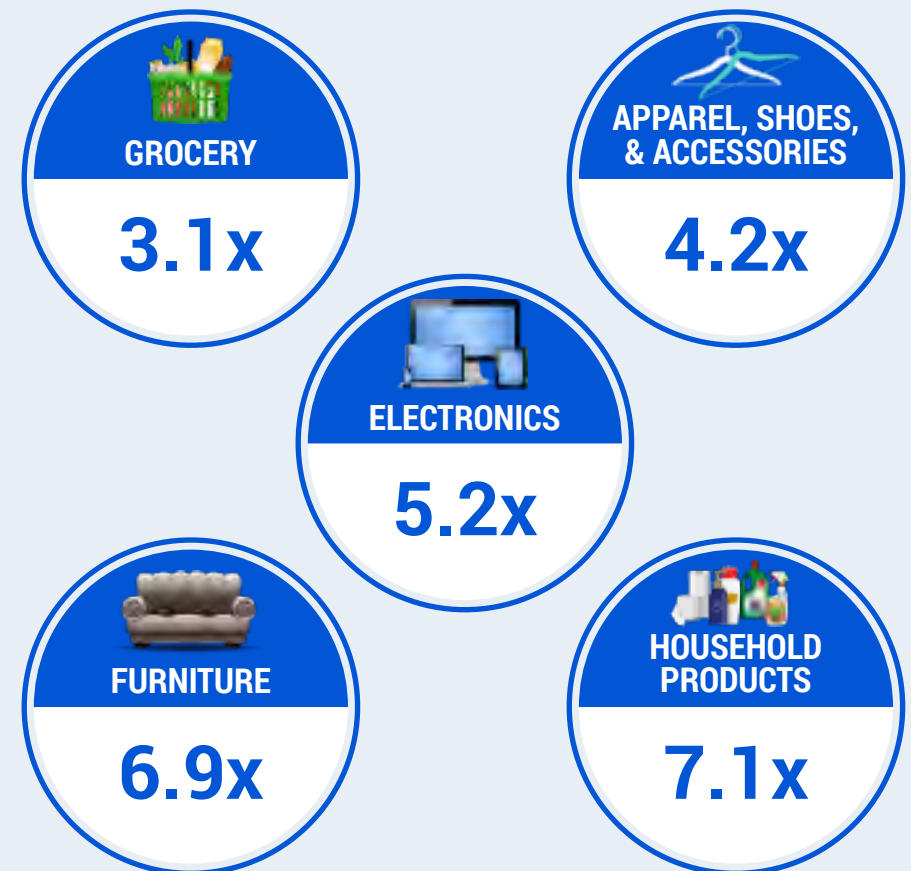
In eCommerce, Super Users account for the great majority of total spend, heavily over-indexing on all major consumer categories

ECOMMERCE SPEND, U.S., 2021E,
% ADULTS AGED 18+ / % TOTAL ECOMMERCE SPEND



ECOMMERCE SPEND COMPARISON
BY CATEGORY, U.S., 2021E, SUPER USERS
INDEXED TO ALL OTHER USERS

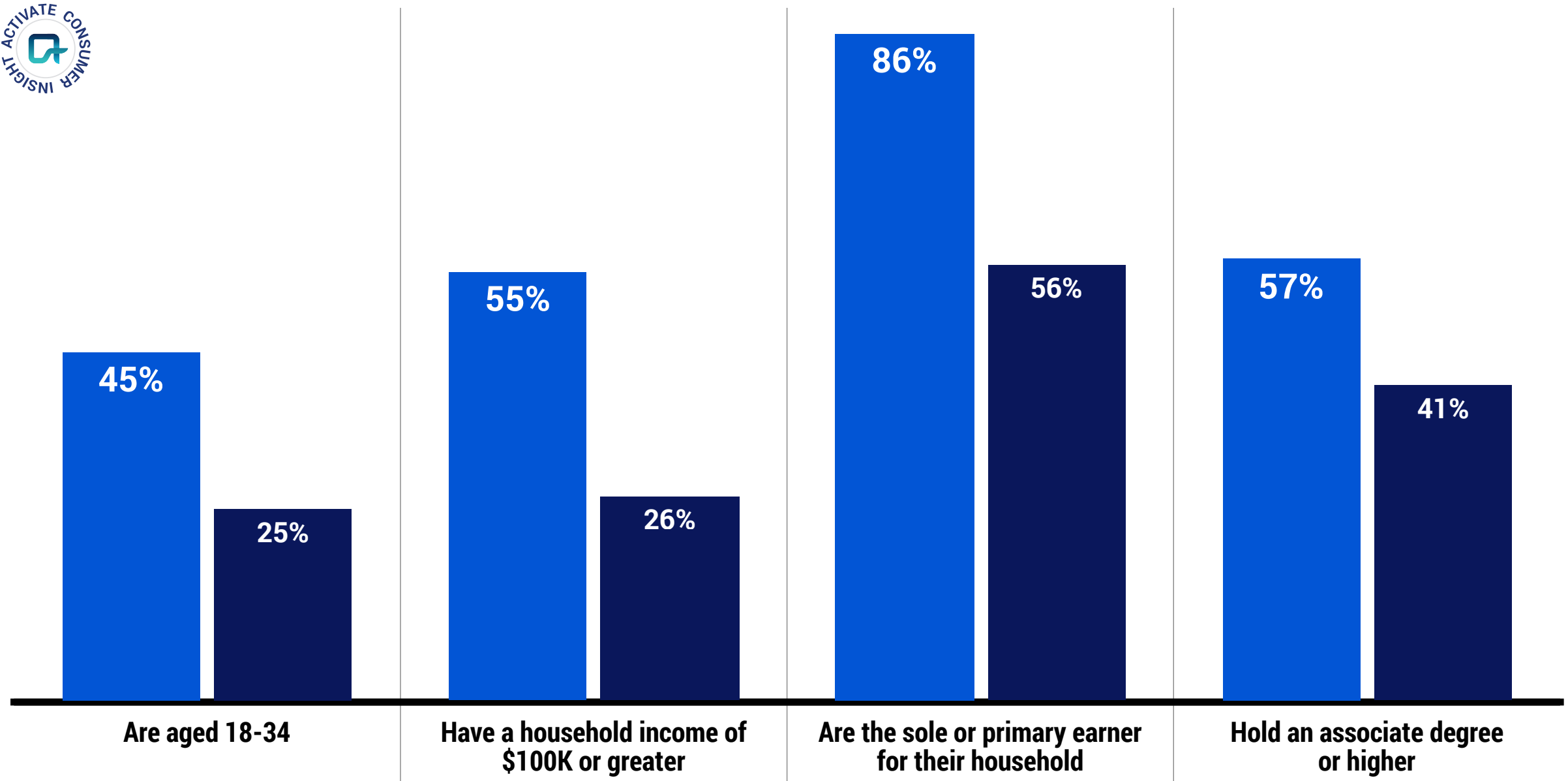
Super Users over-index on eCommerce spend across a number of key categories



Super Users are younger and more affluent, with a higher level of education

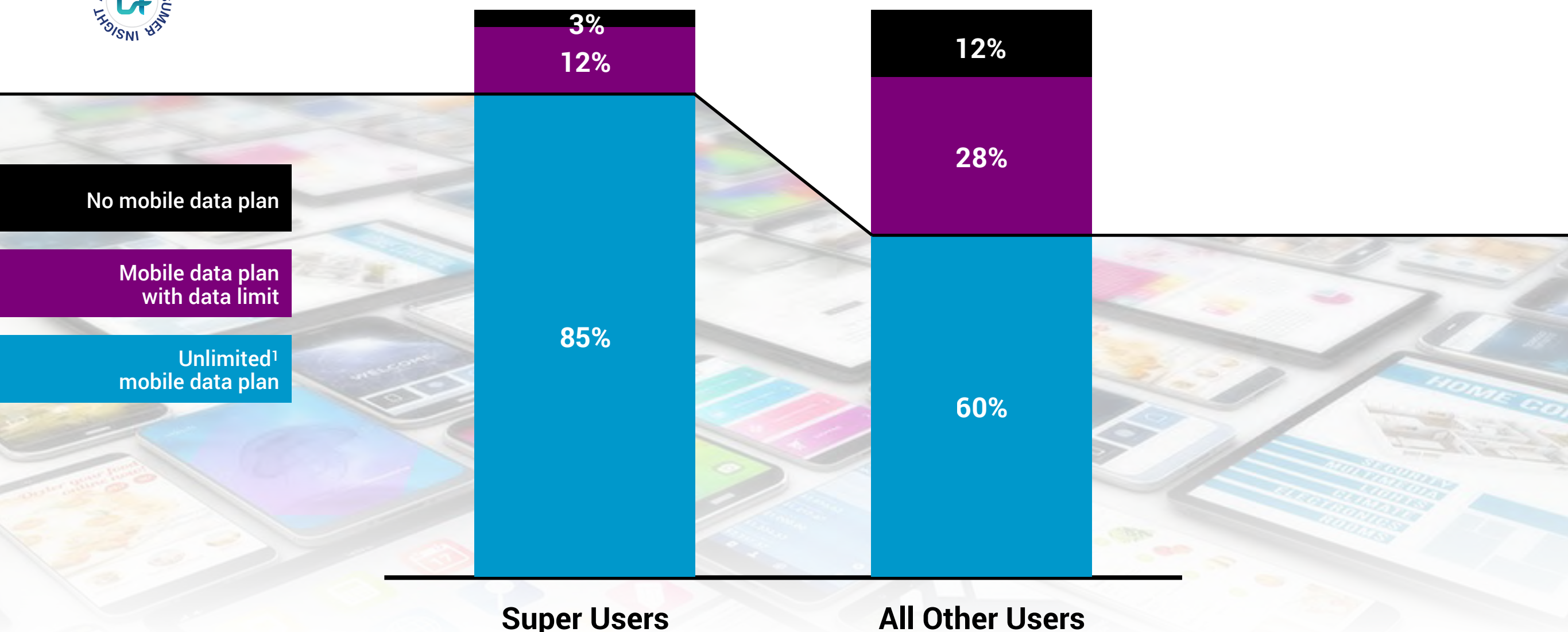
USER DEMOGRAPHICS, U.S., 2021, % ADULTS AGED 18+

■ % Super Users ■ % All Other Users



Connectivity: The vast majority of Super Users subscribe to unlimited mobile data plans

MOBILE DATA PLAN ACCESS, U.S., 2021, % ADULTS AGED 18+



Early Adopters: Super Users are significantly more likely to be early adopters; they buy and use products and services before anyone else and are up to date on trends in technology and media

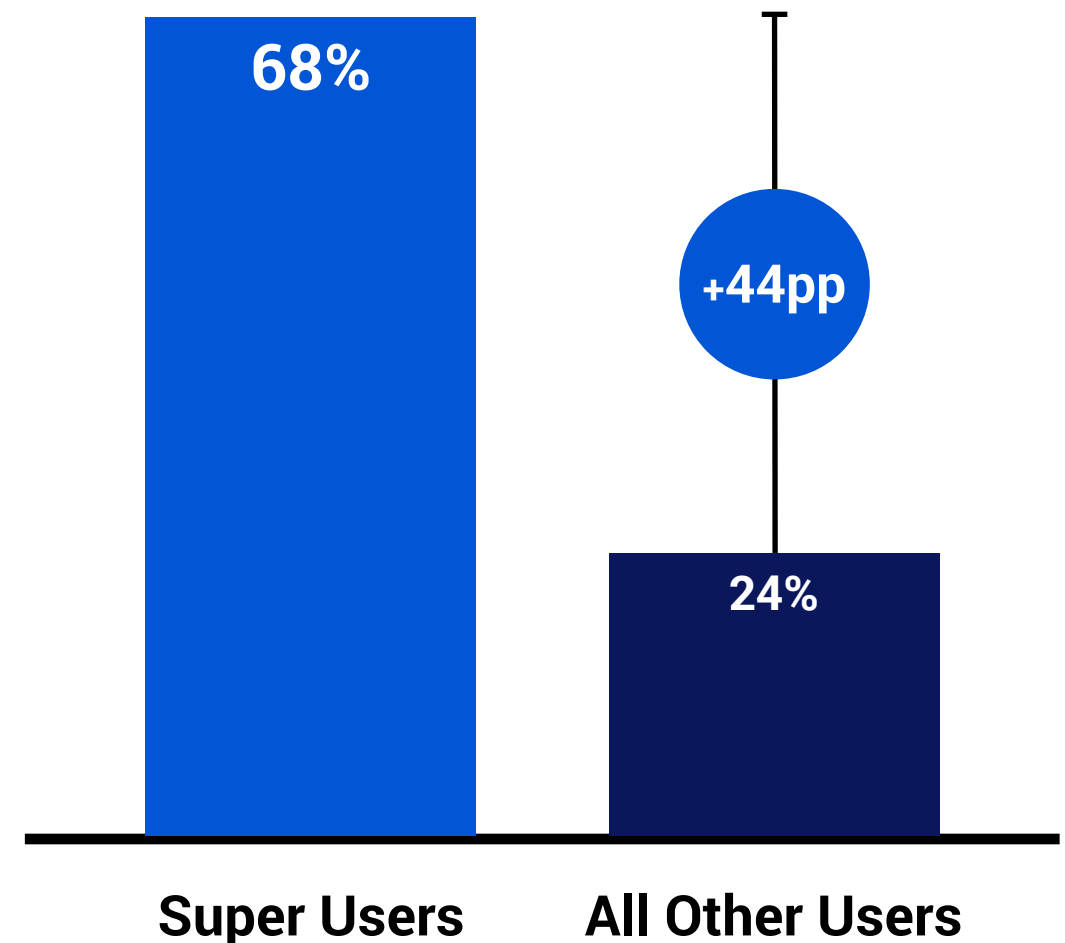
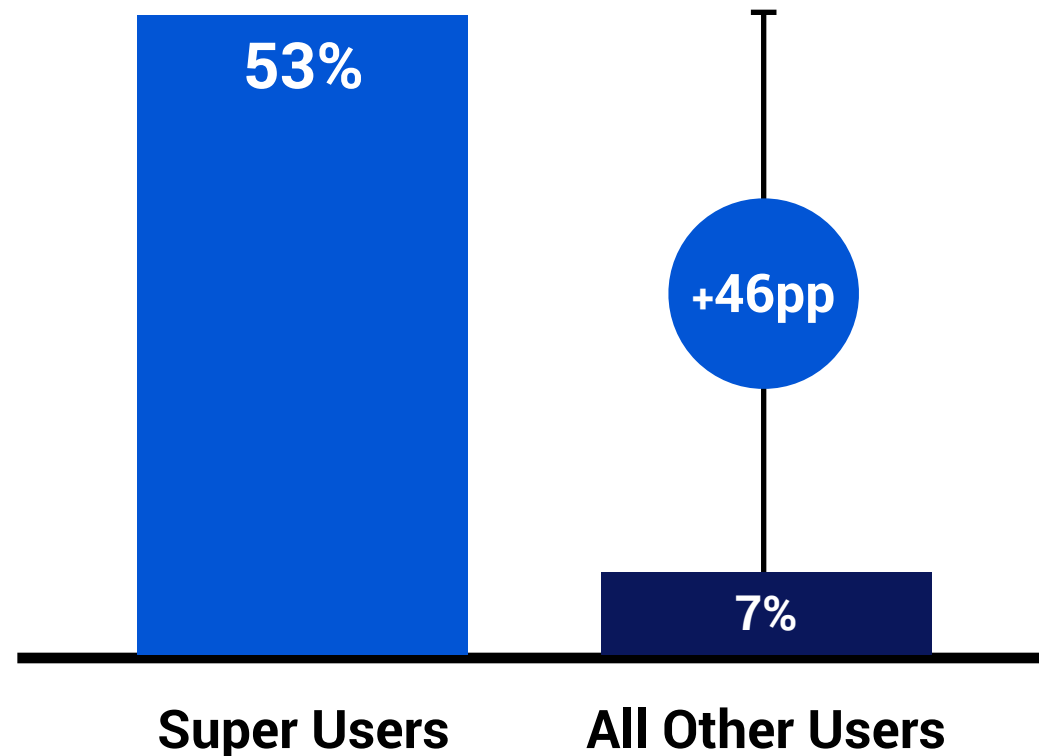
TENDENCY TO BUY/USE NEW SERVICES/DEVICES/ TECHNOLOGIES BEFORE ANYONE ELSE, U.S., 2021, % ADULTS AGED 18+

TENDENCY TO ALWAYS OR OFTEN KEEP INFORMED ON NEWS ABOUT THE LATEST TECHNOLOGY AND MEDIA PRODUCTS/SERVICES, U.S., 2021, % ADULTS AGED 18+

Buying/using new services and devices before anyone else



Keeping informed on news about the latest products and services



Advocacy: Super Users are significantly more likely to be brand amplifiers, sharing their experiences with technology and media and recommending products and services

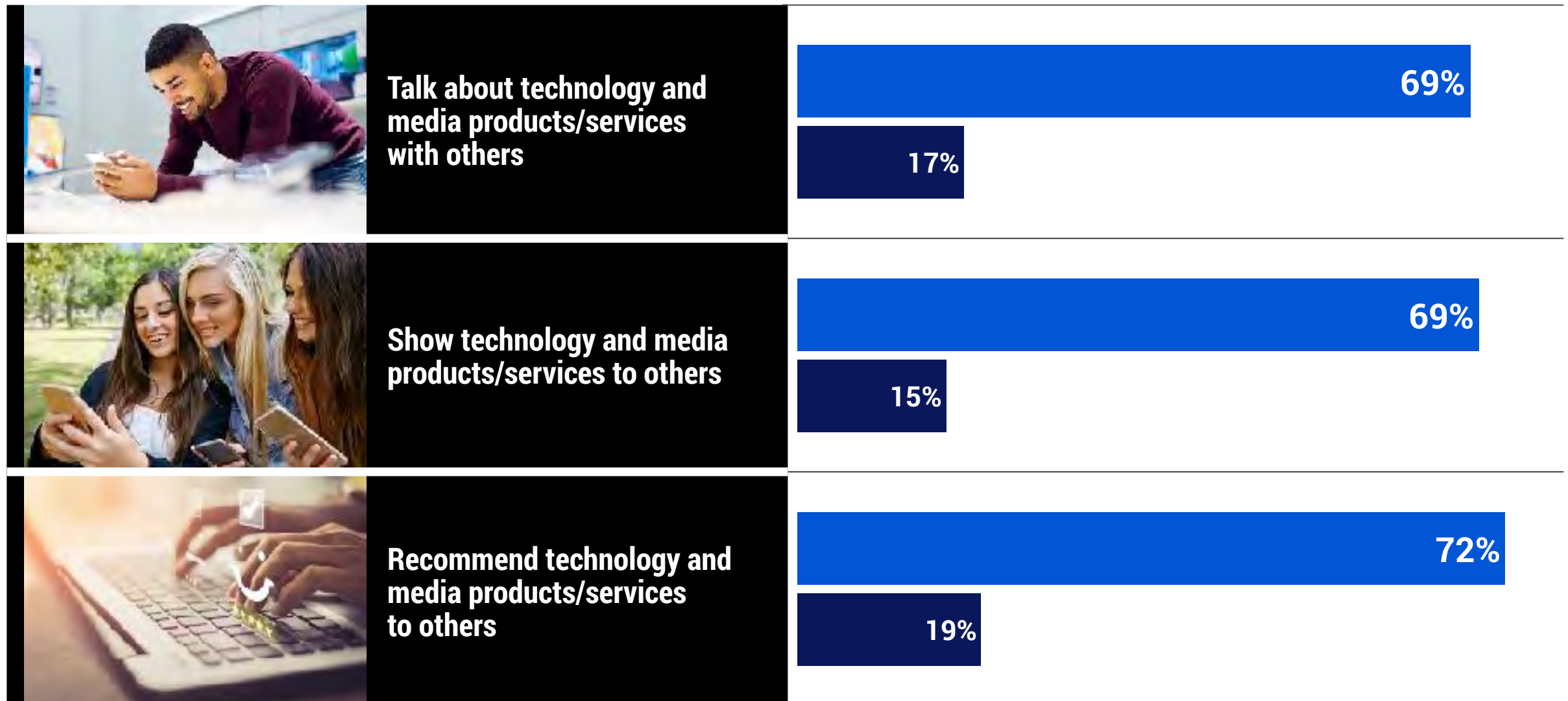
TENDENCY TO AMPLIFY EXPERIENCES WITH TECHNOLOGY AND MEDIA PRODUCTS/SERVICES, U.S., 2021, % ADULTS AGED 18+



ALWAYS OR OFTEN...

% Super Users

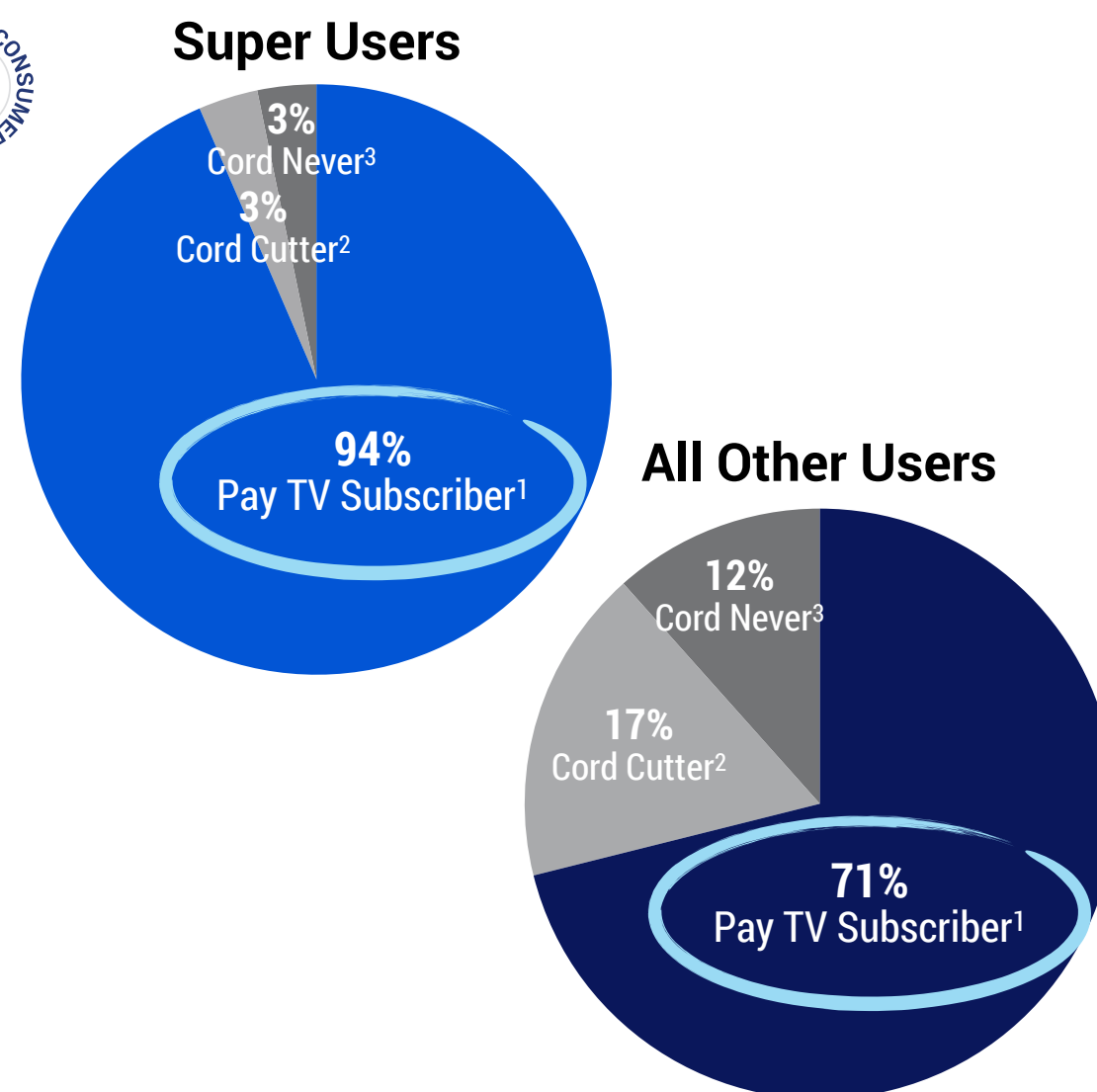
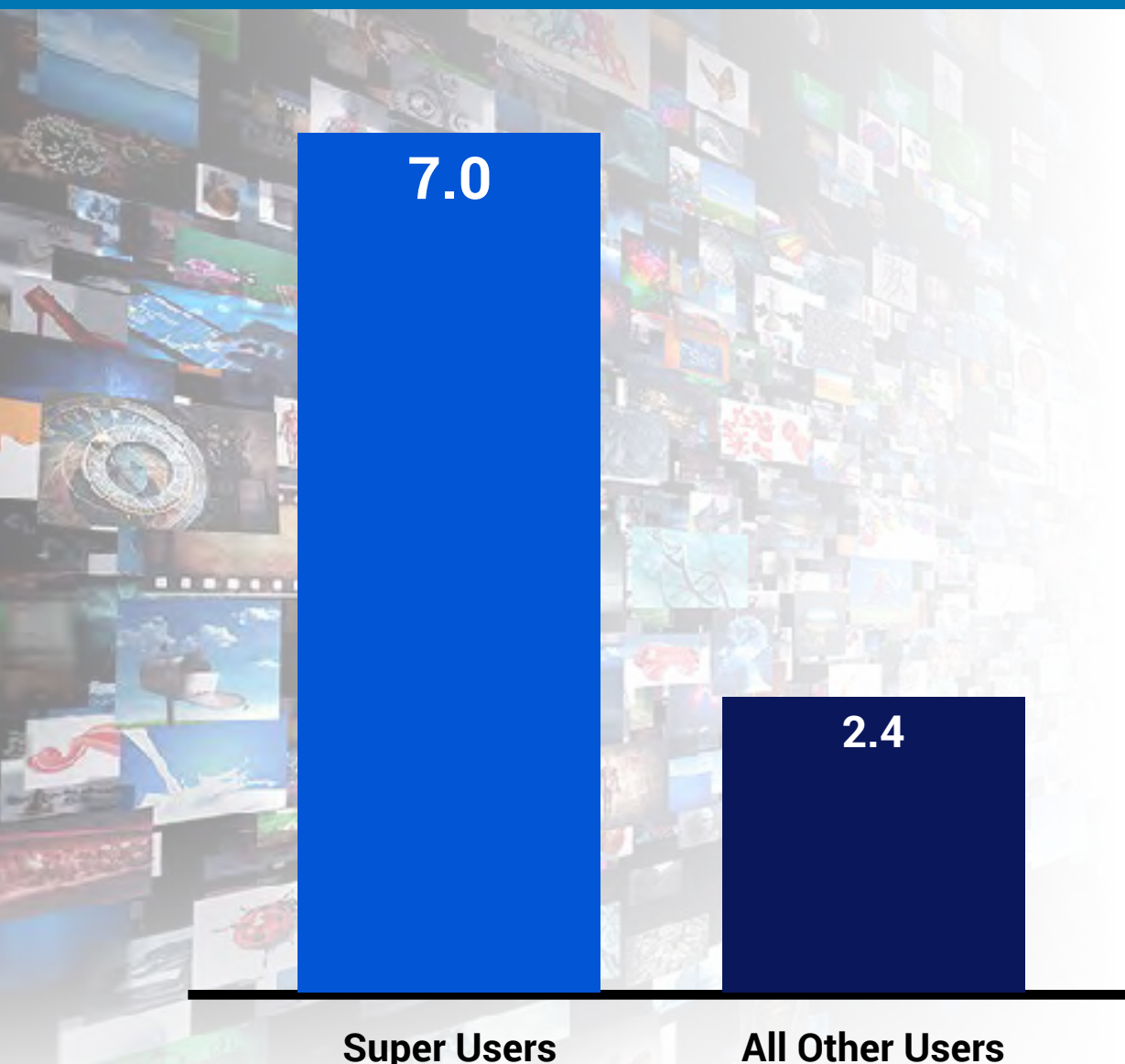
% All Other Users



Video: Super Users subscribe to more video streaming services while maintaining their Pay TV subscriptions

AVERAGE NUMBER OF PAID VIDEO STREAMING SUBSCRIPTIONS OWNED PER USER, U.S., 2021, # SUBSCRIPTIONS

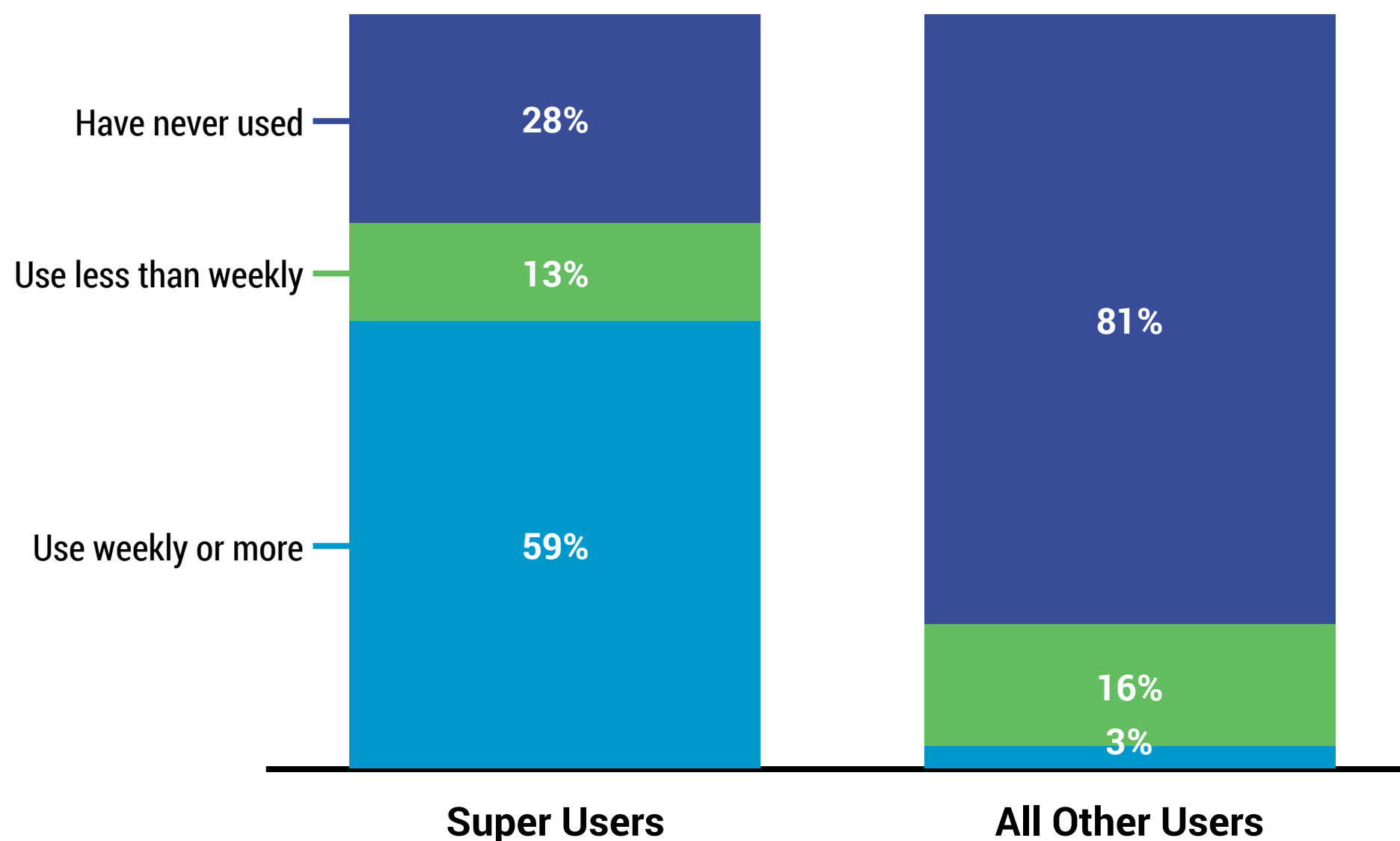
PAY TV SUBSCRIBER¹ STATUS, U.S., 2021, % ADULTS AGED 18+



1. "Pay TV subscriber" is defined as an adult aged 18+ whose household has a traditional/virtual Pay TV subscription. 2. "Cord cutter" is defined as an adult aged 18+ whose household used to have a traditional/virtual Pay TV subscription and no longer does. 3. "Cord never" is defined as an adult aged 18+ whose household has never had a traditional/virtual Pay TV subscription. Sources: Activate analysis, Activate 2021 Consumer Technology & Media Research Study (n = 4,018), Activate 2021 Consumer Video Research Study (n = 2,014)

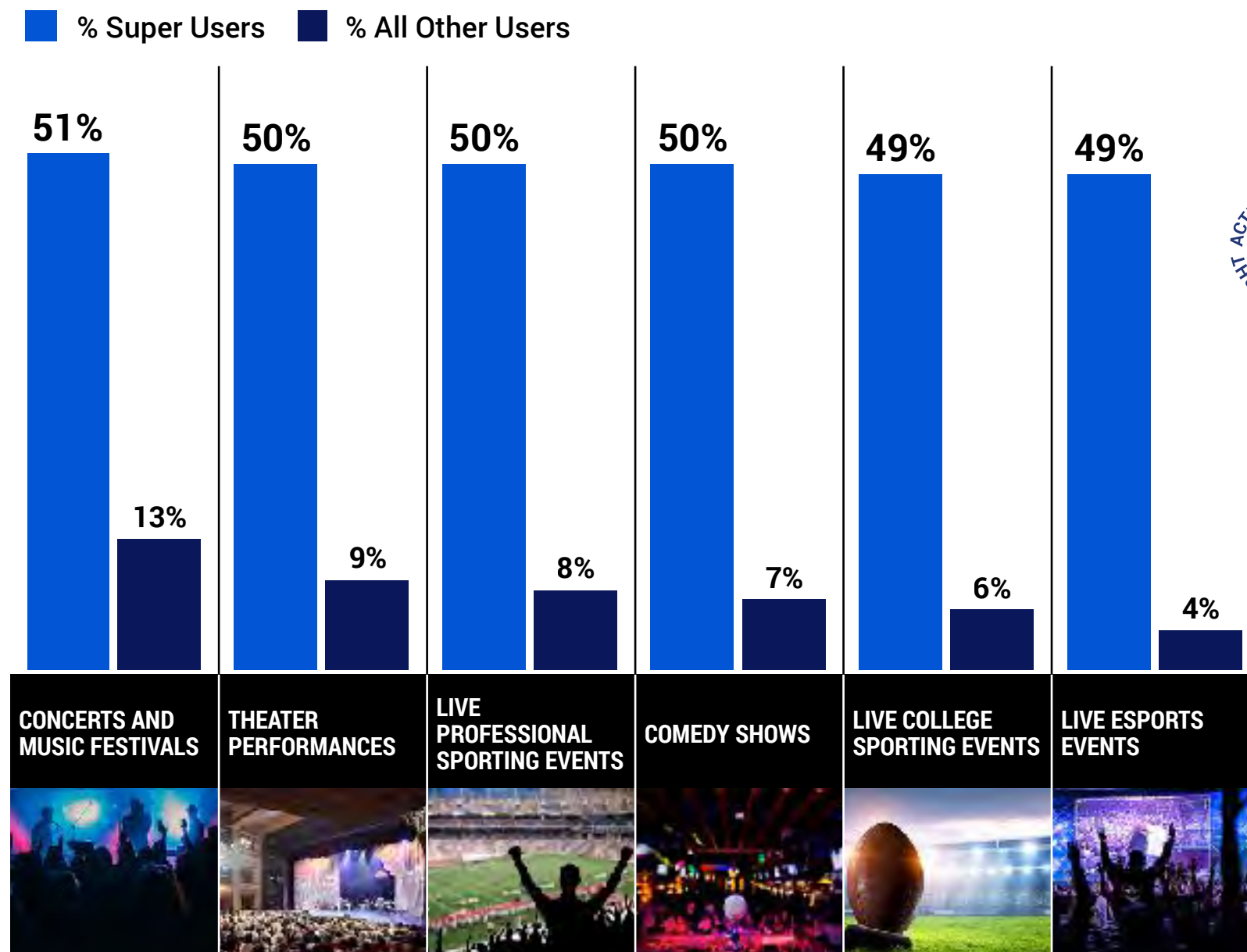
Virtual Reality: Super Users are massive users of Virtual Reality and will lead the way with new VR headsets and VR experiences

VIRTUAL REALITY USAGE, U.S., 2021, % ADULTS AGED 18+



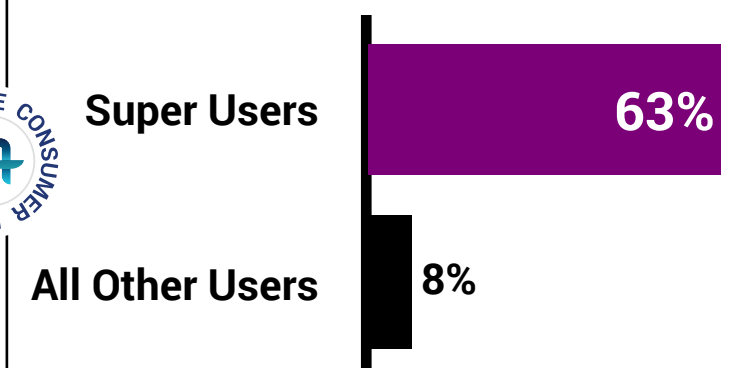
Live Events: Super Users will lead the charge back to in-person live events and have already attended significantly more virtual live events

INTENT TO ATTEND MORE LIVE EVENTS¹ IN THE NEXT 12 MONTHS THAN BEFORE THE COVID-19 OUTBREAK², U.S., 2021, % ADULTS AGED 18+

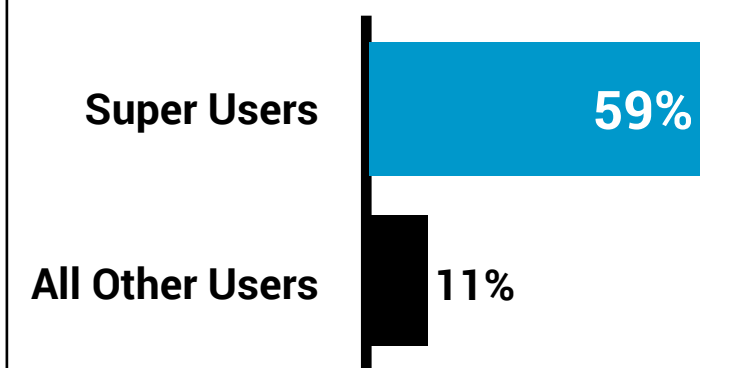


ONLINE CONCERT ATTENDANCE, U.S., 2021, % ADULTS AGED 18+

IN THE LAST 12 MONTHS



EXPECTED IN THE NEXT 12 MONTHS



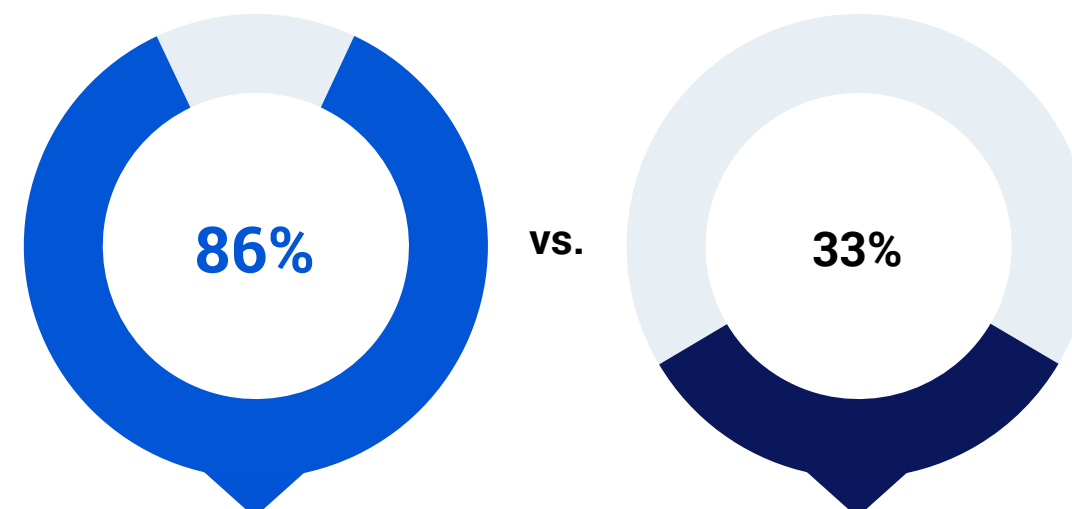
Super Users have led the move to telemedicine and will continue to prefer digital access to healthcare versus in person

TELEMEDICINE¹ USAGE IN THE LAST 12 MONTHS, U.S., 2021, % ADULTS AGED 18+

PREFERENCE FOR TELEMEDICINE¹, U.S., 2021, % ADULTS AGED 18+ WHO HAVE USED TELEMEDICINE¹ IN THE LAST 12 MONTHS



PREFER USING TELEMEDICINE¹ TO SEEING A HEALTHCARE PROVIDER IN PERSON



Super Users²

All Other Users²



Super Users

All Other Users

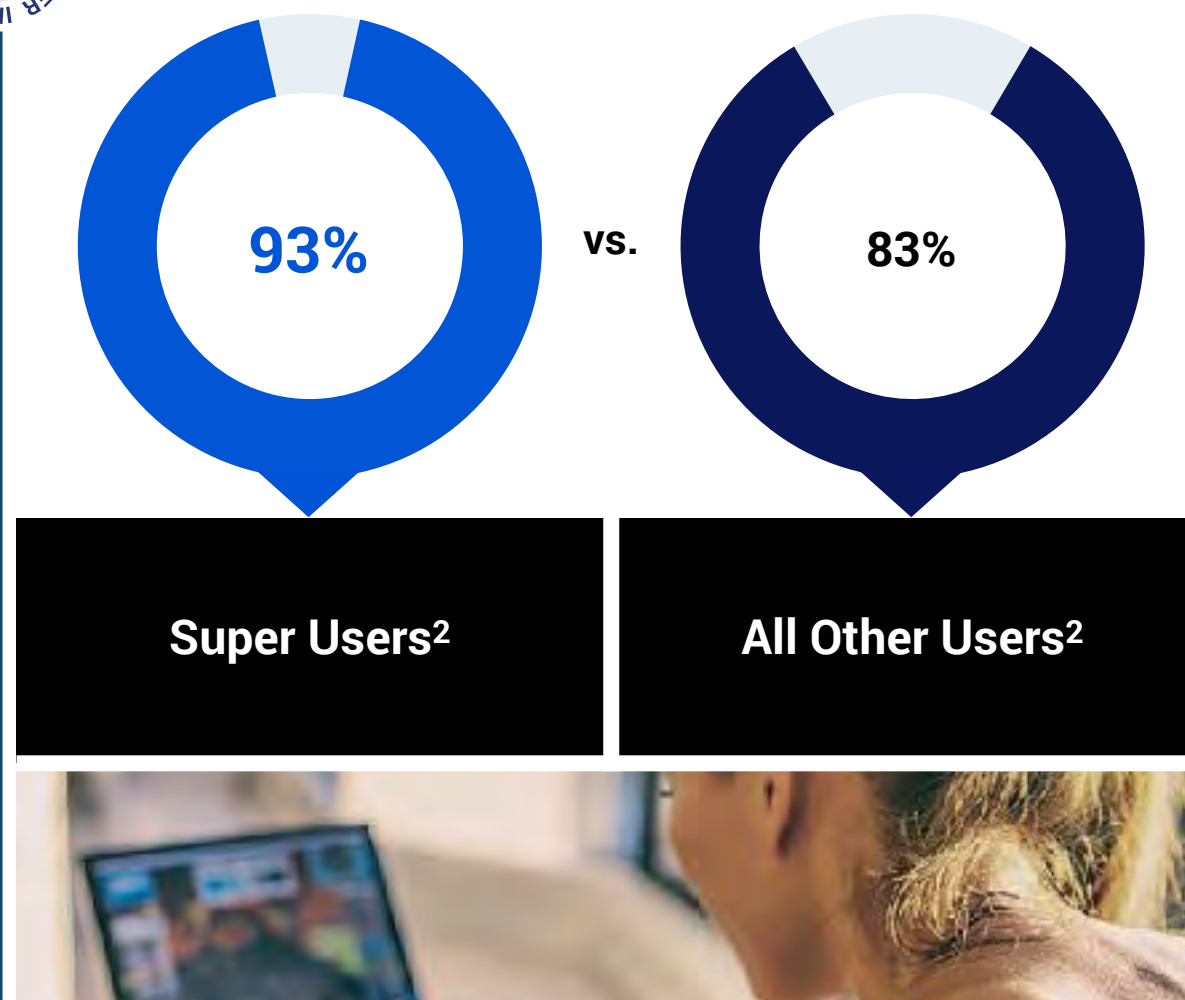
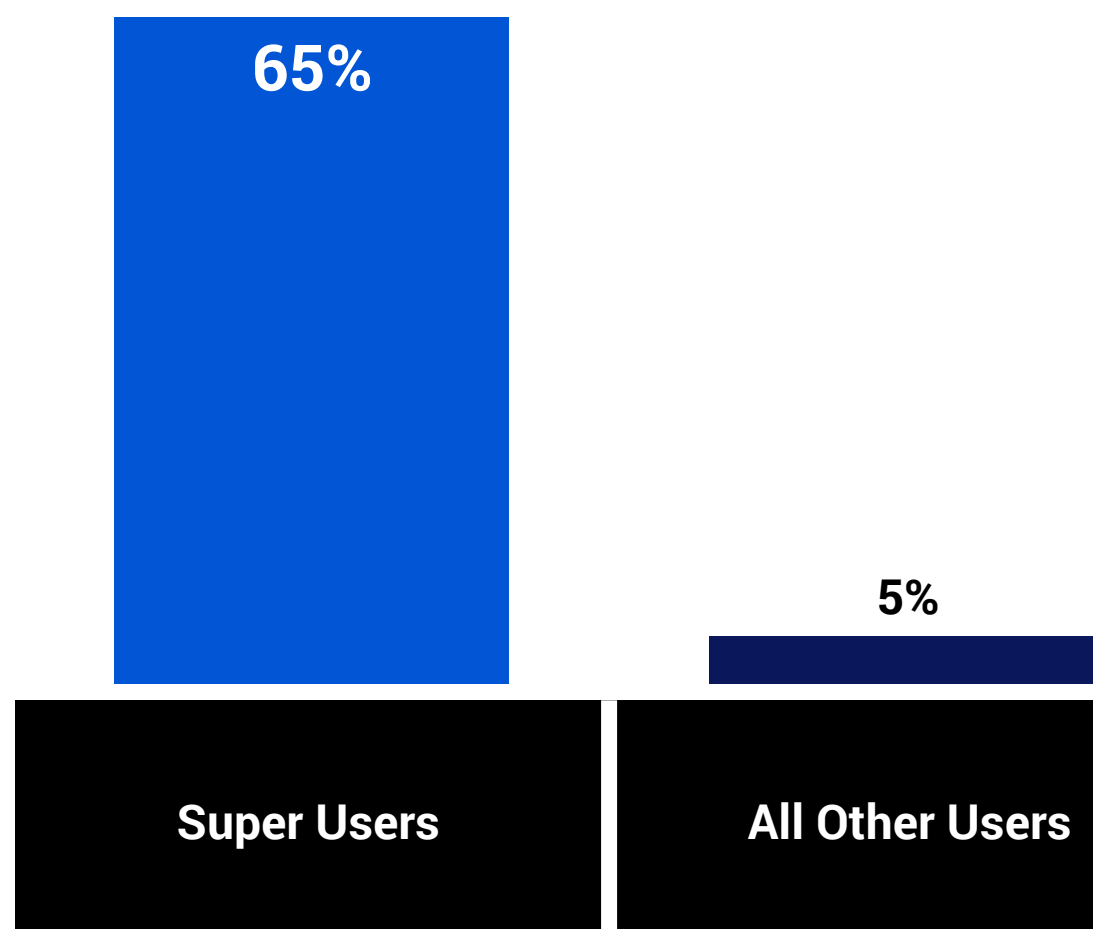
The overwhelming majority of Super Users use and prefer connected fitness devices versus going to a gym

CURRENT AT-HOME CONNECTED FITNESS EQUIPMENT¹ USAGE, U.S., 2021, % ADULTS AGED 18+

PREFERENCE FOR AT-HOME CONNECTED FITNESS EQUIPMENT¹, U.S., 2021, % ADULTS AGED 18+ WHO USE AT-HOME CONNECTED FITNESS EQUIPMENT¹



PREFER USING AT-HOME CONNECTED FITNESS EQUIPMENT¹ TO GOING TO THE GYM IN PERSON

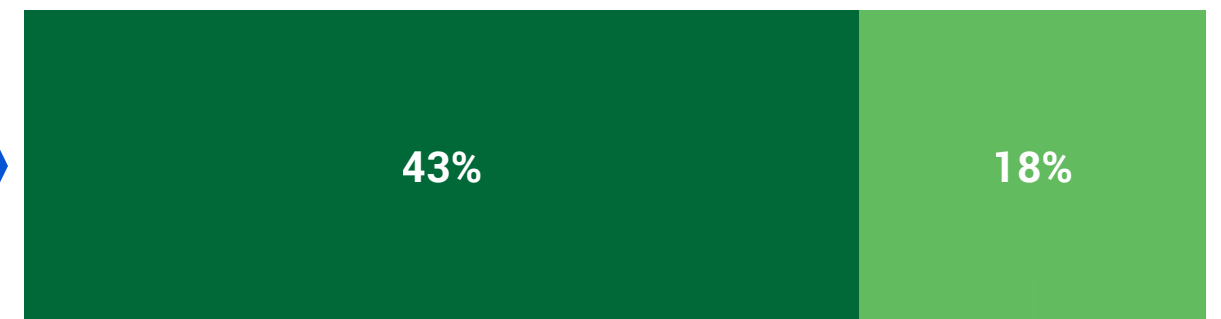
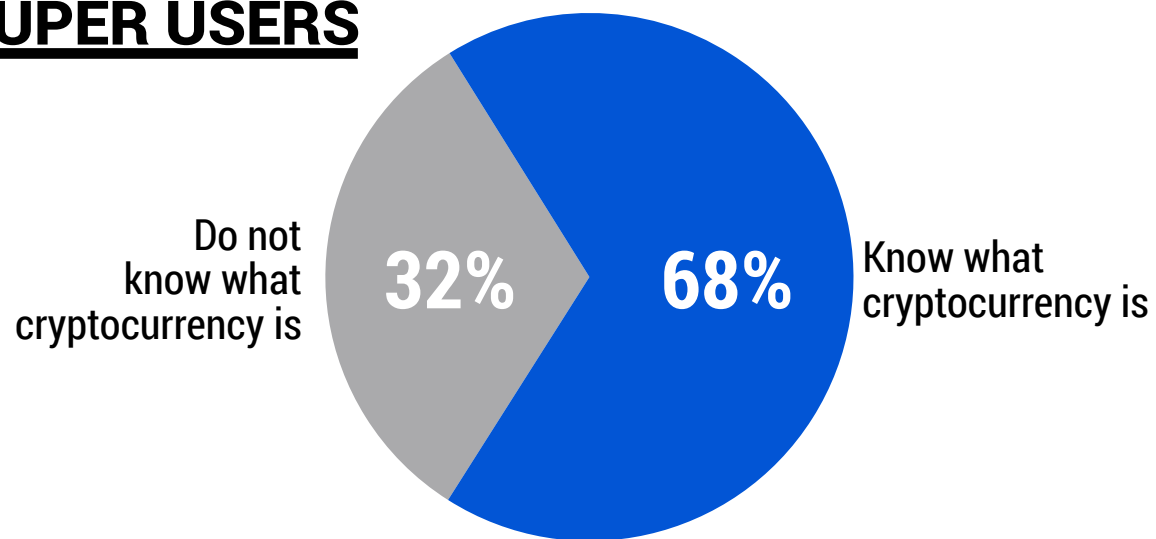


Cryptocurrency: Super Users are early adopters of cryptocurrency

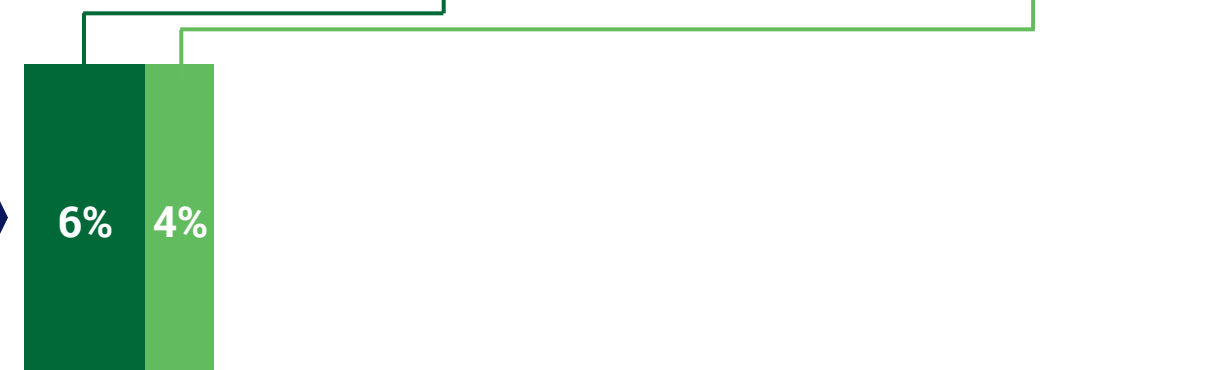
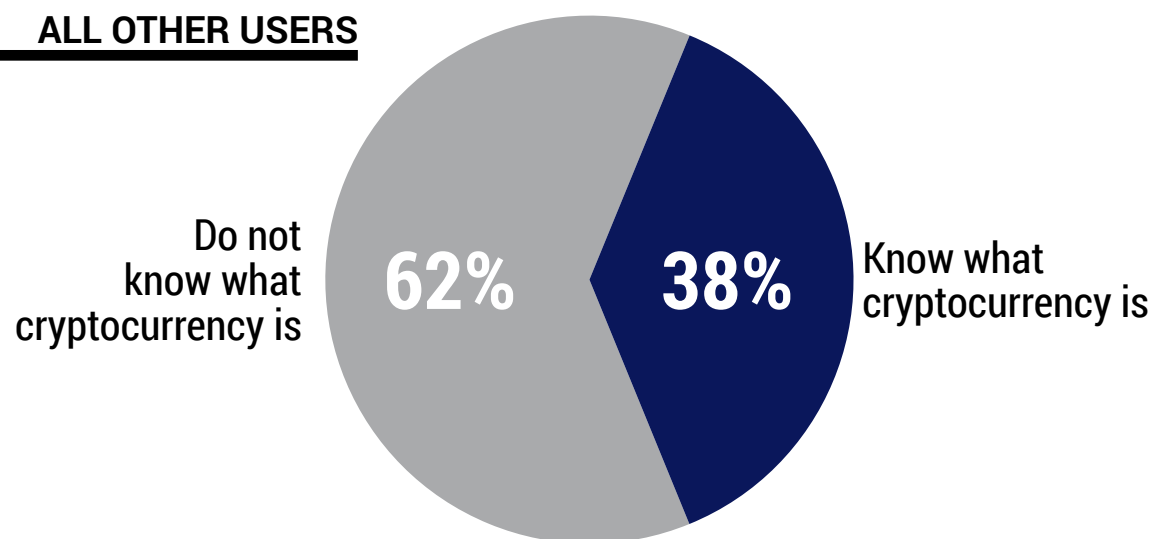
**AWARENESS OF CRYPTOCURRENCY,
U.S., 2021, % ADULTS AGED 18+**

**USAGE OF AND INTEREST IN CRYPTOCURRENCY,
U.S., 2021, % ADULTS AGED 18+**

SUPER USERS



ALL OTHER USERS

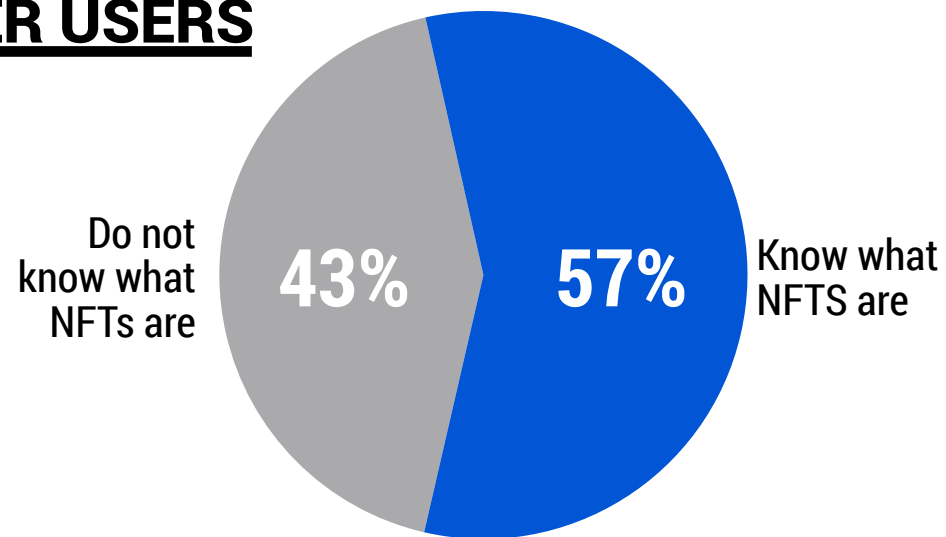


NFTs: Super Users are also significantly more likely to know about NFTs, and many have already purchased or are likely to purchase an NFT in the near future

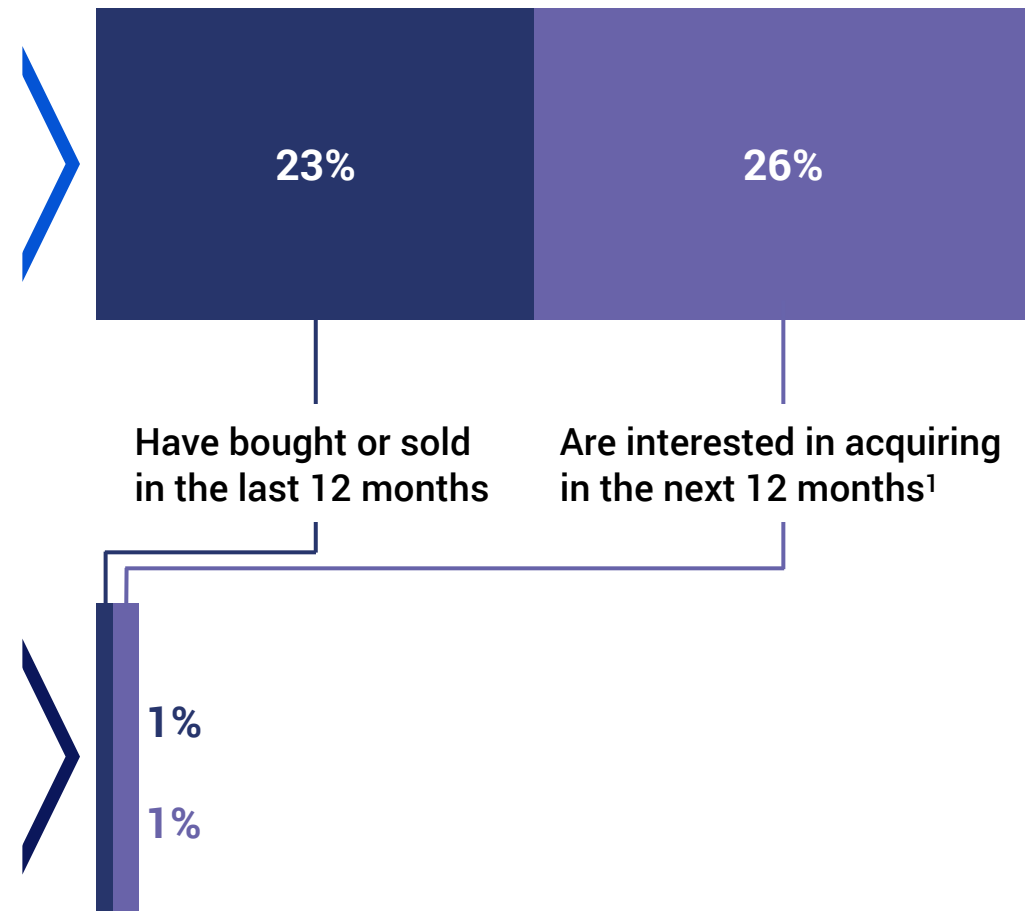
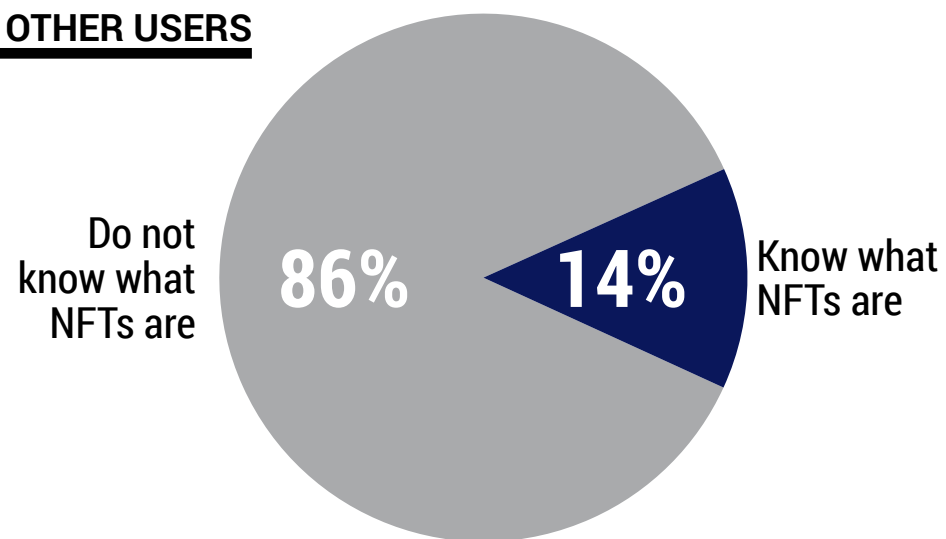
AWARENESS OF NFTS,
U.S., 2021, % ADULTS AGED 18+

USAGE OF AND INTEREST IN NFTS,
U.S., 2021, % ADULTS AGED 18+

SUPER USERS



ALL OTHER USERS





































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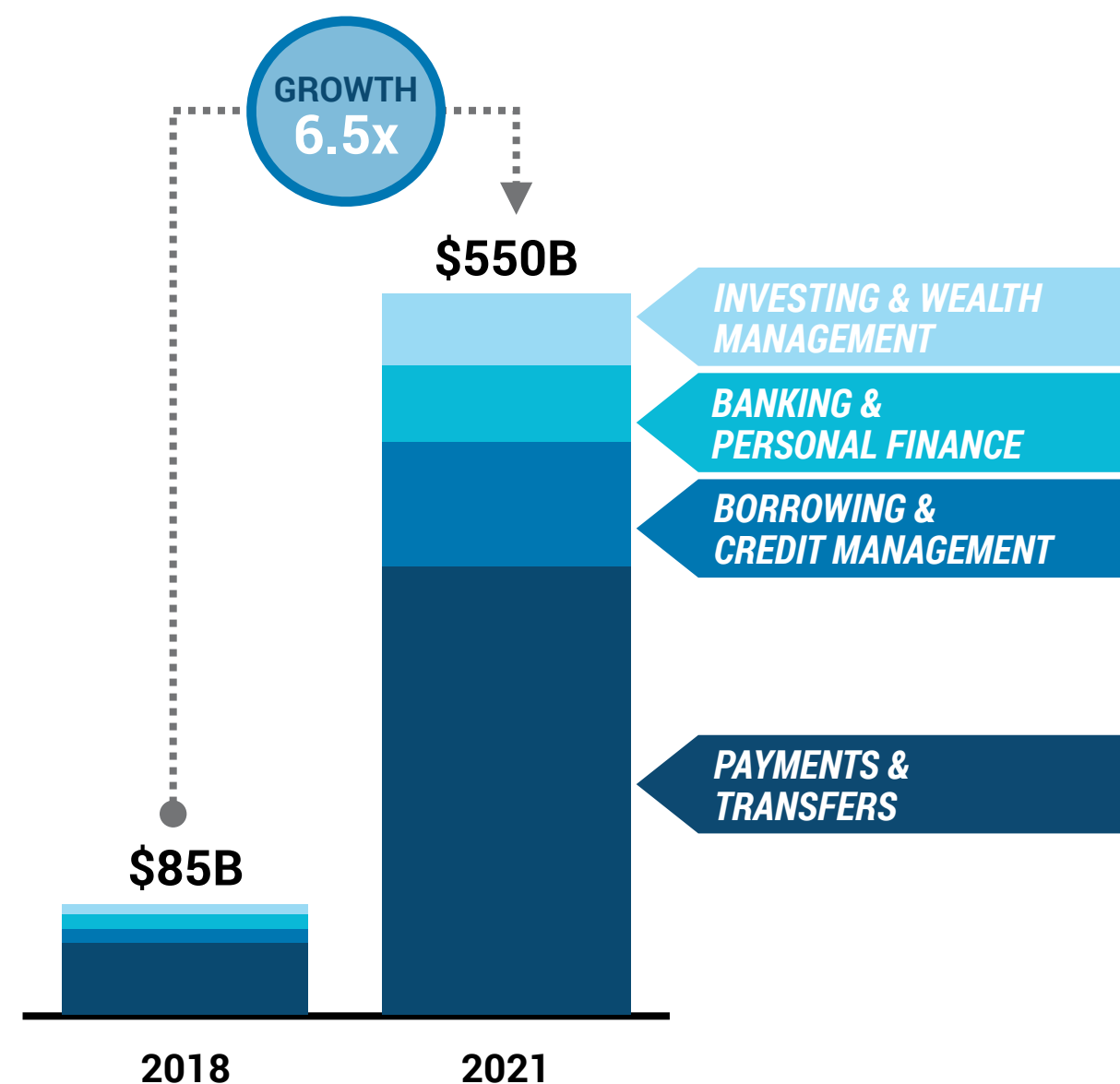
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In 2018, Activate identified the inflection point in Digital Consumer Finance; since then, a massive amount of value has been created

EXAMPLE U.S.-BASED CONSUMER FINANCE COMPANIES FOUNDED SINCE 2007¹

ESTIMATED VALUATION² OF U.S.-BASED CONSUMER FINANCE COMPANIES FOUNDED SINCE 2007¹, U.S., 2018 VS. 2021, BILLIONS USD

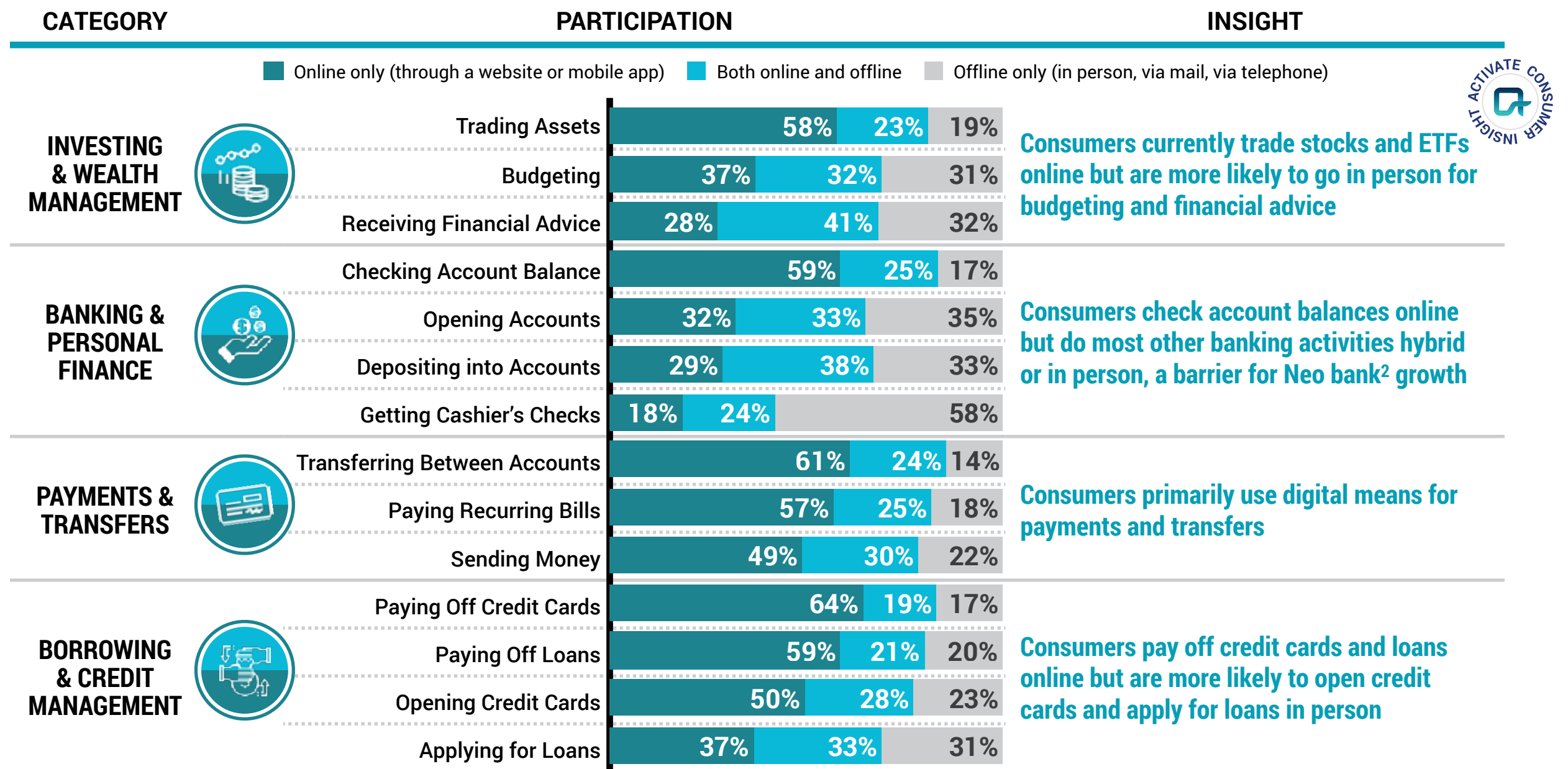
INVESTING & WEALTH MANAGEMENT	Active Trading (Stocks & ETFs)	 robinhood	 M1 Finance	 STOCKPILE	
	Wealth Management & Retirement	 wealthfront	 Betterment	 ELLEVEST	
BANKING & PERSONAL FINANCE	Checking & Savings	 Varo	 Current	 digit	 chime
	Insurance	 Lemonade	 Root Insurance Co	 hippo	
	Budgeting	 Dave	 EMPOWER RETIREMENT™	 MoneyLion®	
PAYMENTS & TRANSFERS	Consumer Payments & Transfers	 flywire	 Remitly Promises Delivered	 tabapay	
	Payments Processing & Networks	 Square	 Bolt	 stripe	 toast
BORROWING & CREDIT MANAGEMENT	Lending	 Upstart	 SoFi	 splash financial	 Better
	POS Lending	 affirm	 Katapult	 sezzle	
	Credit	 credit sesame		 NOVA CREDIT	 Self.



1. Excludes companies that are primarily cryptocurrency platforms. 2. 2018 valuation reflects 2018 or most recent valuation prior to 2018. 2021 valuation reflects 2021 or most recent valuation. Excludes B2B companies. Excludes companies founded before 2018 that do not have a 2018 or prior valuation publicly available.
Sources: Activate analysis, Company filings, Company press releases, Pitchbook

Investing, borrowing, and online-only payment methods will become dominant digital behaviors, while banking will be slower to move entirely online

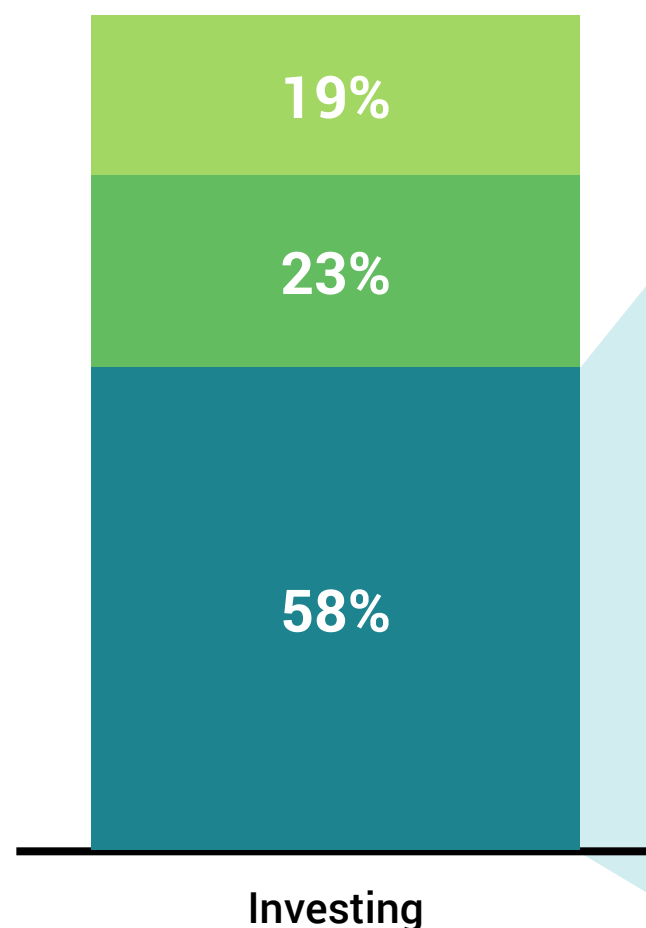
ONLINE VS. OFFLINE ACTIVITY PARTICIPATION¹, U.S., 2021, % ADULTS AGED 18+ WHO PARTICIPATE IN ACTIVITY



Investing: Although new players, such as Robinhood and Acorns, have been disruptive in equities trading, traditional players (e.g. Fidelity and Schwab) have adapted and will continue to win most consumers

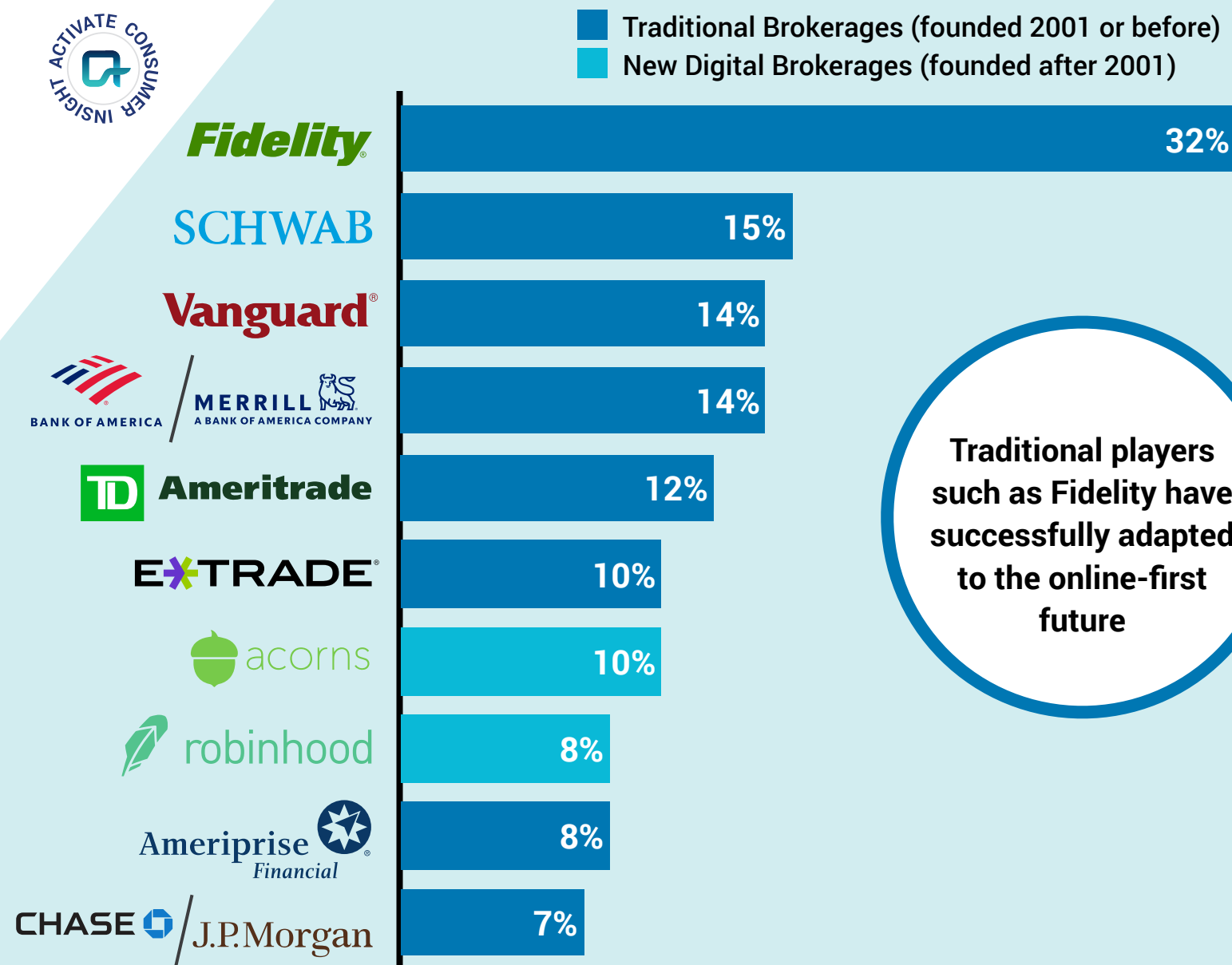
ONLINE VS. OFFLINE PARTICIPATION IN INVESTING, U.S., 2021, % ADULTS AGED 18+ WITH INVESTMENT ACCOUNTS

- Offline only (in person, via mail, via telephone)
- Both online and offline
- Online only (through a website or mobile app)



TOP TEN BROKERAGES USED, U.S., 2021, % ADULTS AGED 18+ WHO ONLY ACCESS INVESTMENT ACCOUNTS ONLINE

- Traditional Brokerages (founded 2001 or before)
- New Digital Brokerages (founded after 2001)



Traditional players such as Fidelity have successfully adapted to the online-first future

Investing: Consumers will continue to choose traditional investment platforms over new digital platforms because of customer service and perceived security

REASONS¹ FOR USING PRIMARY BROKERAGE, U.S., 2021,
% ADULTS AGED 18+ WHOSE PRIMARY BROKERAGE ACCOUNT IS NEW DIGITAL VS. TRADITIONAL

EXAMPLES

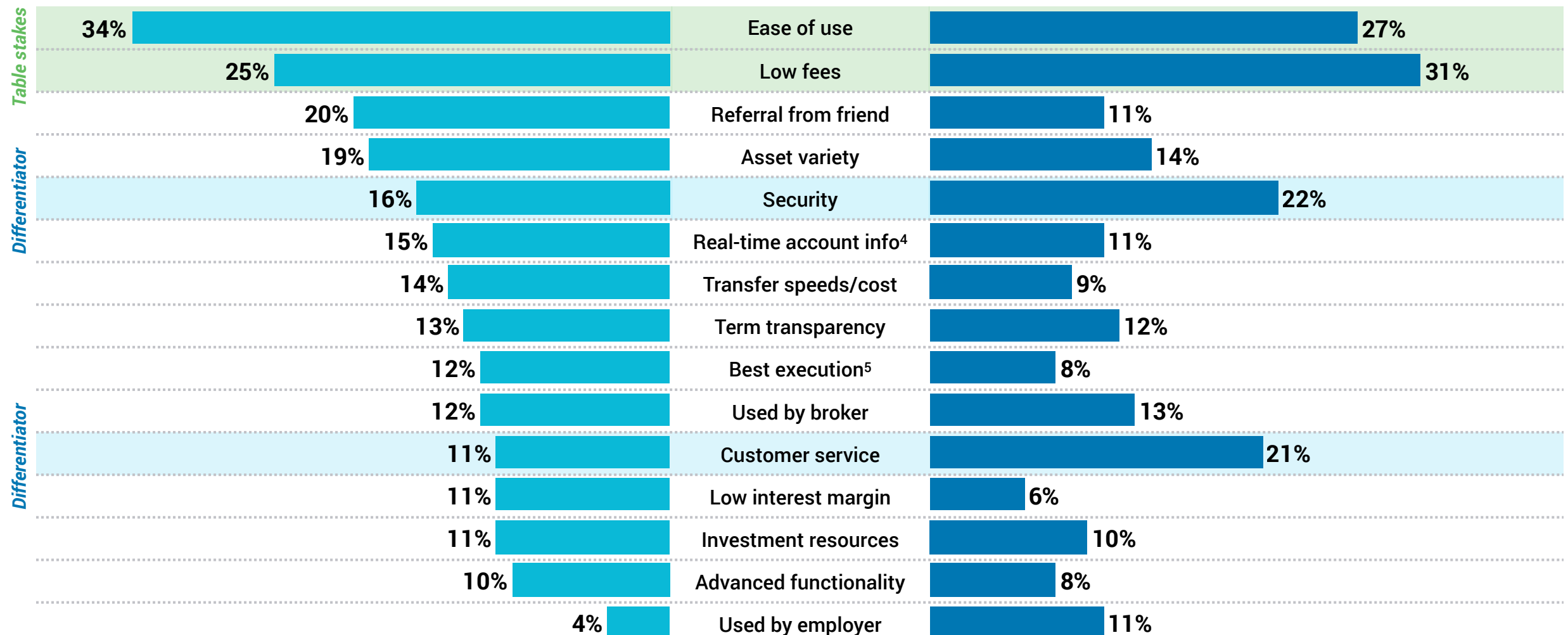
NEW DIGITAL BROKERAGES²

acorns robinhood ally invest Cash App Betterment



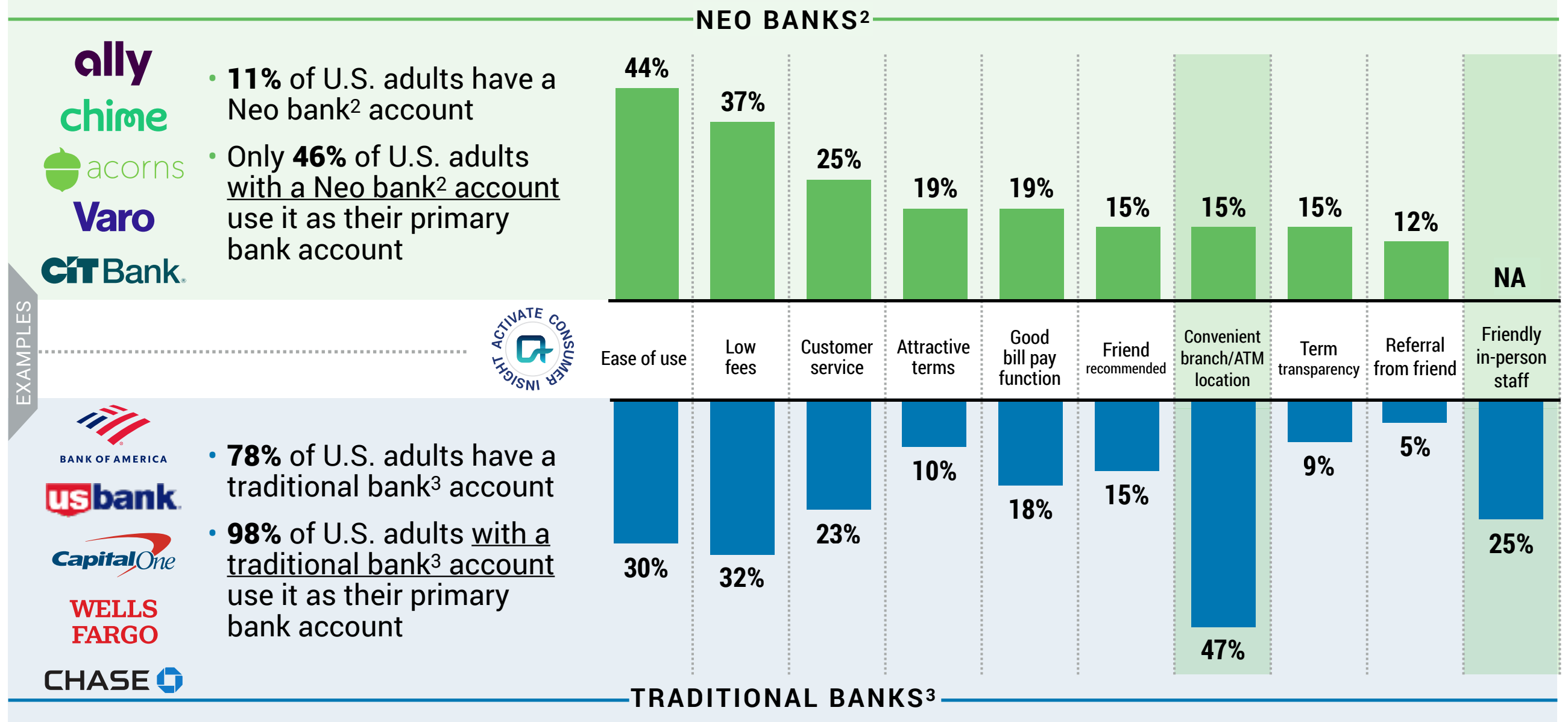
TRADITIONAL BROKERAGES³

Fidelity MERRILL A BANK OF AMERICA COMPANY SCHWAB Vanguard® Edward Jones



Banking: Consumers will remain resistant to adopting Neo banks due to the convenience of branches / ATM locations of traditional banks, superior customer service, and minimal perceived advantages in fees or ease of use

REASONS FOR USING PRIMARY BANK¹, U.S., 2021,
% ADULTS AGED 18+ WHOSE PRIMARY BANK ACCOUNT IS A NEO BANK² VS. TRADITIONAL BANK³

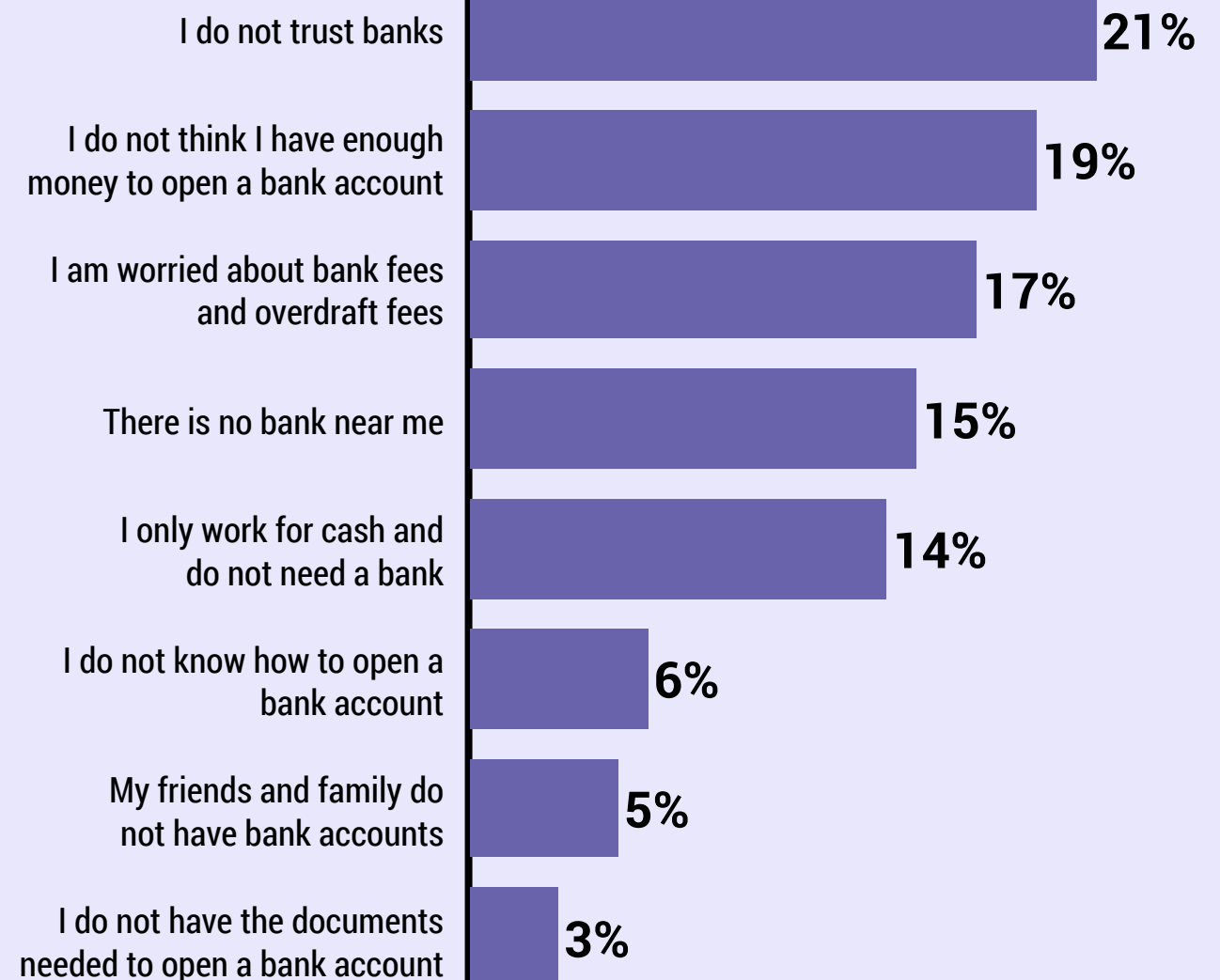
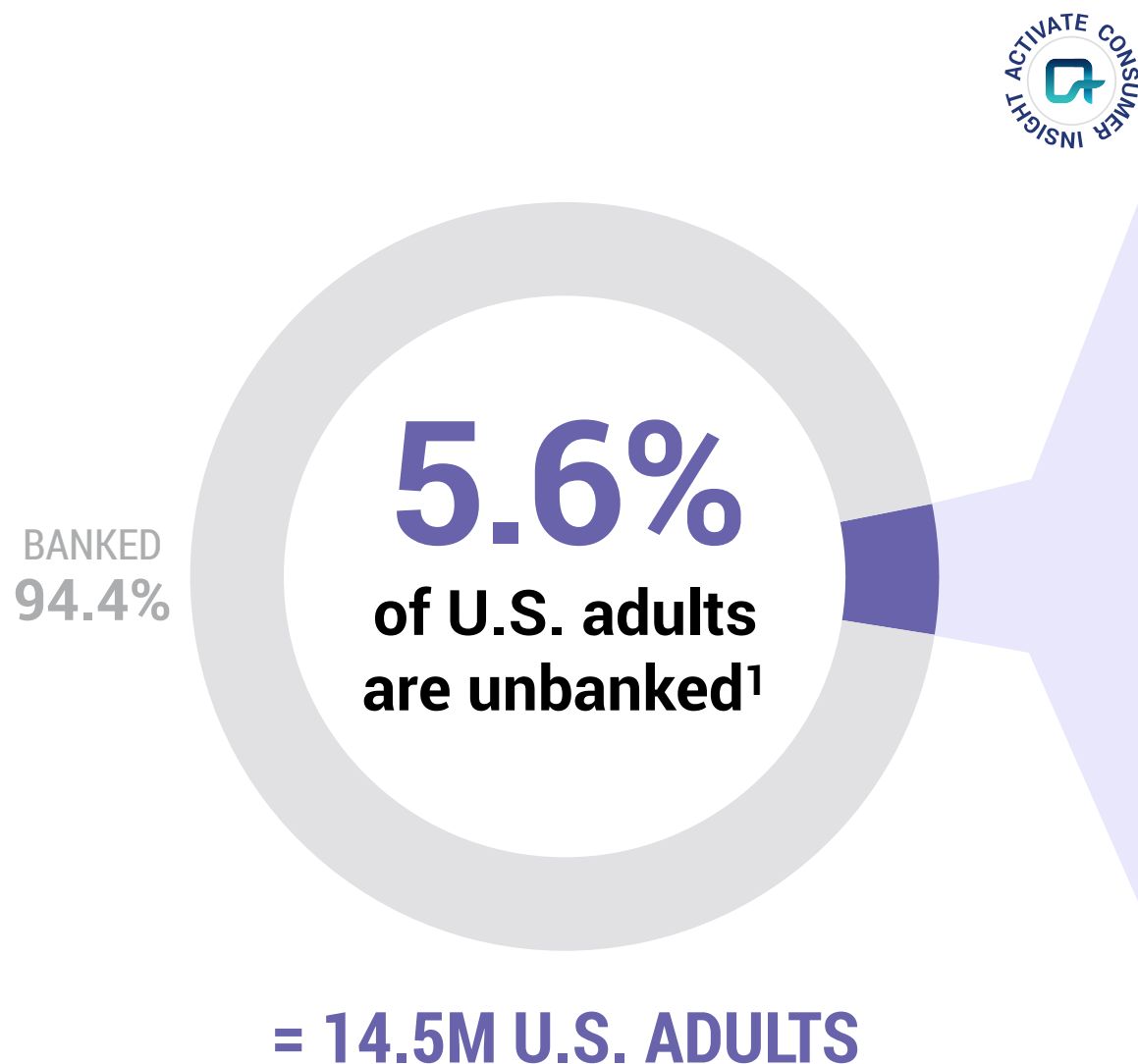


1. Consumers were asked to select up to three top reasons for using their primary bank for checking/savings. 2. "Neo banks" are defined as banks that do not have any physical branches and are founded in 2000 or after. 3. "Traditional banks" are defined as banks with physical branches or founded before 2000.
Sources: Activate analysis, Activate 2021 Consumer Technology & Media Research Study (n = 4,018)

Unbanked: 5.6% of Americans remain unbanked; although many are unable to open an account (due to lack of funds or limited access), the top reason is distrust of banks

**BANKED VS. UNBANKED¹ POPULATION, U.S., 2021,
% ADULTS AGED 18+**

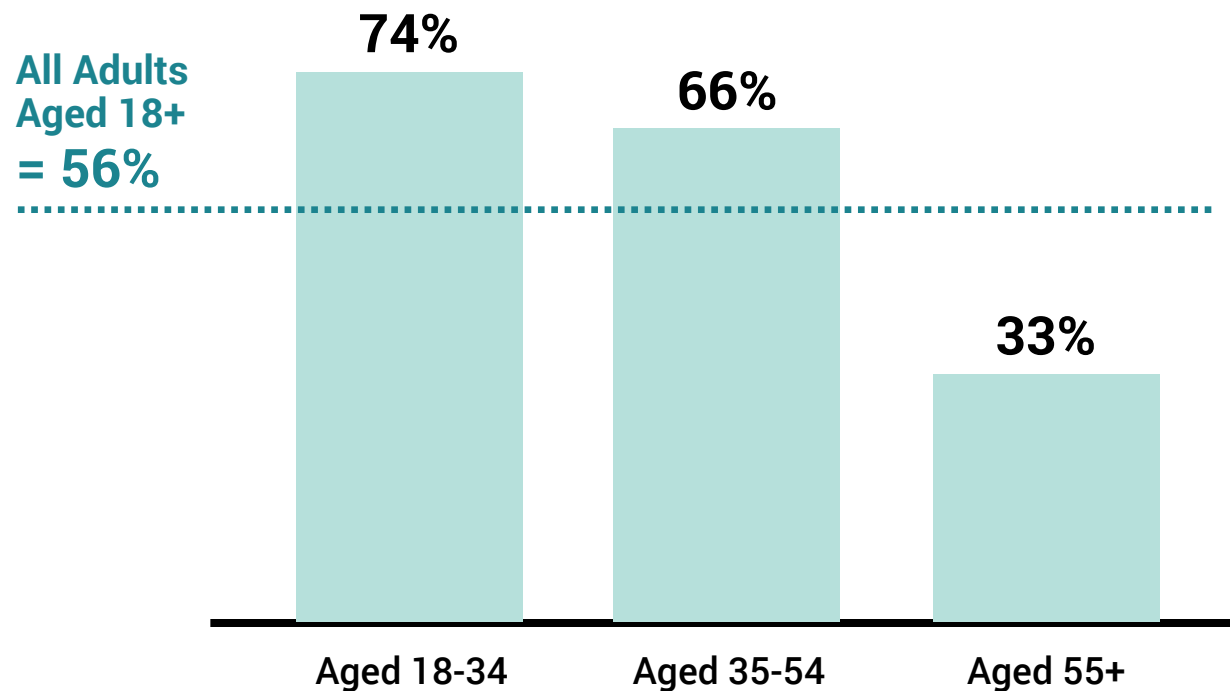
**REASONS² FOR BEING UNBANKED, U.S., 2021,
% UNBANKED¹ ADULTS AGED 18+ WHO PROVIDED REASON³**



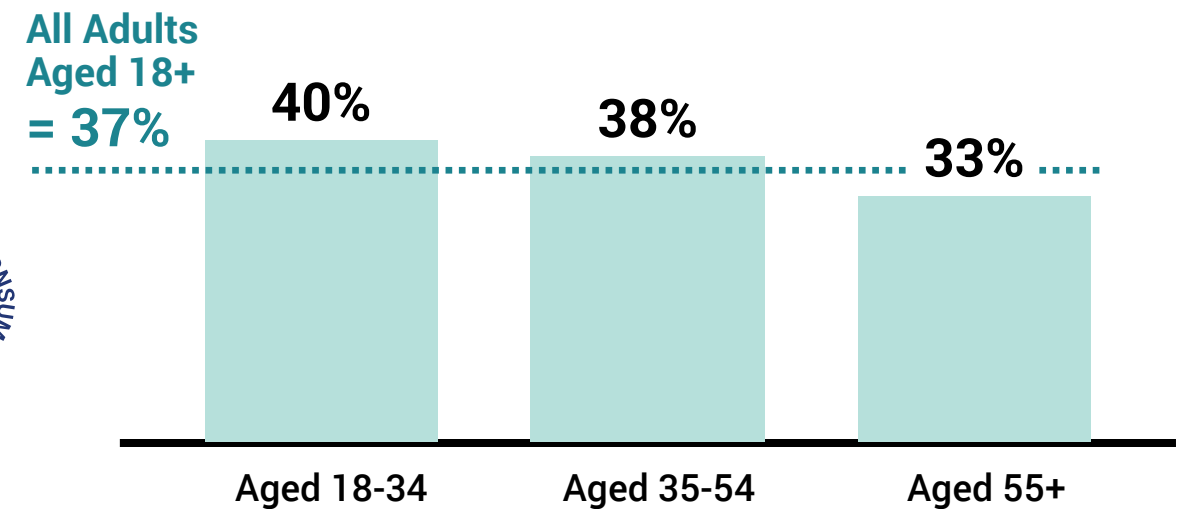
Payments: Younger consumers are much more likely to use digital services for P2P payments; age is not a big differentiator for C2B payments, indicating slower growth ahead

USAGE OF DIGITAL SERVICES FOR P2P VS. C2B PAYMENTS IN THE LAST 12 MONTHS, U.S., 2021, % ADULTS AGED 18+

Use Digital Services for Peer-to-Peer Payments¹



Use Digital Services for Consumer-to-Business Payments²

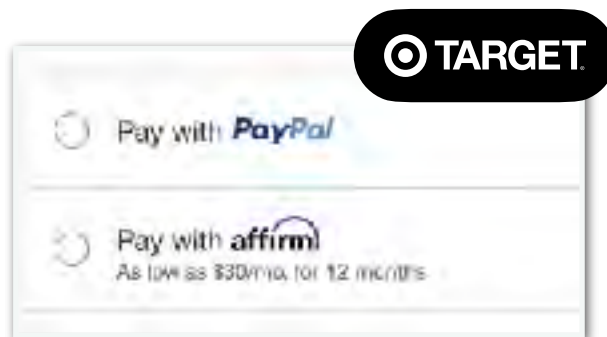


TOP 5 SERVICES:



Consumers will increasingly see financial solutions embedded in the consumer goods and technology industries

FINANCIAL SOLUTIONS IN CONSUMER GOODS / TECHNOLOGY



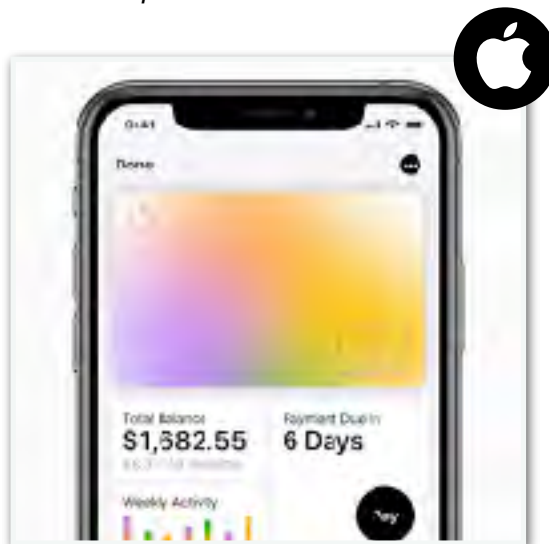
Target partners with the digital payment service **PayPal**, as well as with the Buy Now, Pay Later service **Affirm** to provide point-of-sale financing



Uber Wallet has **Uber Cash**, which allows users to add funds for their next ride or Eats order, and is home to the **Uber Visa Debit Card** (partnership with **Go2Bank**), which allows drivers to cash out up to 5x per day



Starbucks has its **Starbucks Card** feature, which allows users to add funds for Starbucks purchases and earn rewards



Apple Card is a credit card from Apple in partnership with **Goldman Sachs** optimized for use with Apple devices and Apple Pay

SHOPIFY CASE STUDY: EMBEDDED FINANCE



IN ADDITION TO ITS ECOMMERCE CAPABILITIES, SHOPIFY PROVIDES A ROBUST FINTECH STACK TO ITS MERCHANTS:

SHOPIFY BALANCE ACCOUNT

Shopify Balance Account is a merchant checking account for sales deposits with no fees and no minimum balance

SHOPIFY BALANCE CARD

Shopify Balance Card is a debit card that merchants can use to access their money in Shopify Balance and has cash back and discounts on business spending like shipping and marketing

SHOPIFY CAPITAL

Shopify Capital is a business finance program offering loans or cash advances to Shopify merchants

SHOP PAY

Shop Pay is a one-click checkout solution for customers on Shopify stores and has expanded to U.S. merchants selling on Facebook, Instagram, and Google in 2021

SHOP PAY INSTALLMENTS

Shop Pay Installments is a partnership with Affirm to give merchants and shoppers a Buy Now, Pay Later experience

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Cryptocurrencies will likely disrupt industries that rely on transferring value (e.g. consumer finance, video gaming) just as the internet did for transferring information

TRANSFERRING VALUE ON THE INTERNET

Total Time to Transfer Value:

2-3 DAYS

Total Fees to Transfer Value:

~2.5%

vs.

TRANSFERRING VALUE ON A BLOCKCHAIN

Total Time to Transfer Value:

1-10 MINUTES

Total Fees to Transfer Value:

< 0.2%

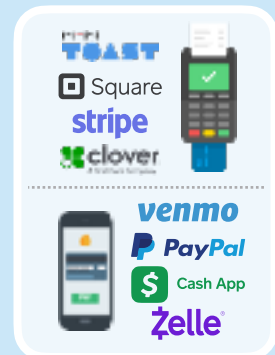
Significantly less time and lower costs for transferring value

VALUE SENDER
(e.g. person, customer)

VALUE RECEIVER
(e.g. person, merchant)

PAYMENT PROCESSOR

Charges ~0.2% fee, point-of-service solution chosen by receiver



CARD ASSOCIATION

Charges ~0.1% fee, guarantees against fraud / other risks



ISSUING BANK

Charges ~1.6% interchange fee



ACQUIRING BANK

Charges ~0.6% interchange fee

After 2-3 Business Days

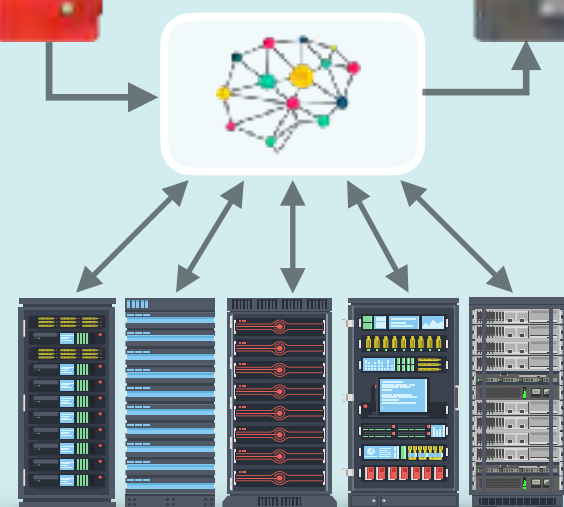
VALUE SENDER
(e.g. person, customer)

VALUE RECEIVER
(e.g. person, merchant)



DIGITAL WALLET

DISTRIBUTED LEDGER



CRYPTOCURRENCY MINERS¹

Solve complex problems to receive cryptocurrency in return – each time they do, they validate a “block” of transactions added to the “chain” of previous blocks in a completely decentralized process

The **INTERNET** revolutionized **INFORMATION** just as **CRYPTOCURRENCIES** will revolutionize **VALUE**

Cryptocurrencies drive down the **cost** of transferring value, just as the internet did with information

Existing institutions **risk being disrupted** and disintermediated






Incumbents that **innovate** will find a way to stay on top, just as we have seen historically in digital consumer finance

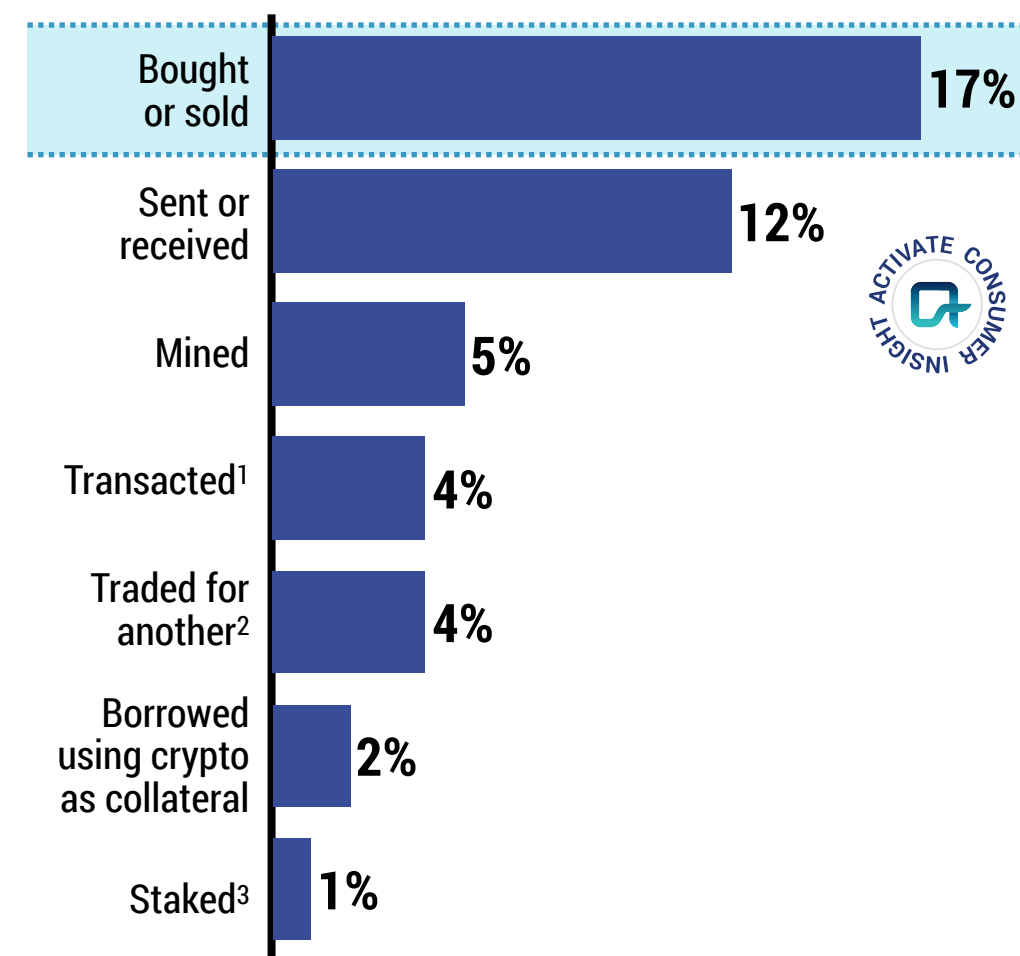
Until now, consumers have primarily used cryptocurrency for trading rather than payments or other crypto use cases; many of the promised use cases of cryptocurrency have faced headwinds limiting adoption

POTENTIAL ADVANTAGES AND CURRENT HEADWINDS

HOW CONSUMERS USE CRYPTOCURRENCY TODAY

Participation in Cryptocurrency, U.S., 2021, % Adults Aged 18+

ADVANTAGES OF CRYPTO	CURRENT HEADWINDS
 LOWER FEES on transactions (especially on low dollar transactions)	Today, fees on transactions with crypto are comparable to other methods due to high fees from crypto intermediaries (e.g. BitPay) and network congestion
 FASTER SPEEDS on settlement of transactions	Though crypto settles faster, it appears slower to consumers because payment solutions (e.g. credit cards) are seemingly instant
 IMPROVED SECURITY and reduced risk	Though no cryptocurrency has been hacked directly to date, early and current intermediaries in the space are hacked somewhat frequently, eroding trust
 ANONYMITY and privacy within transactions	Anonymity creates challenges with preventing money laundering and terrorist financing, and makes regulation compliance difficult
 DECENTRALIZED AUTHORITY with no single "fail point"	The computationally intensive proof-of-work mining process (most common decentralized validation method) raises environmental concerns

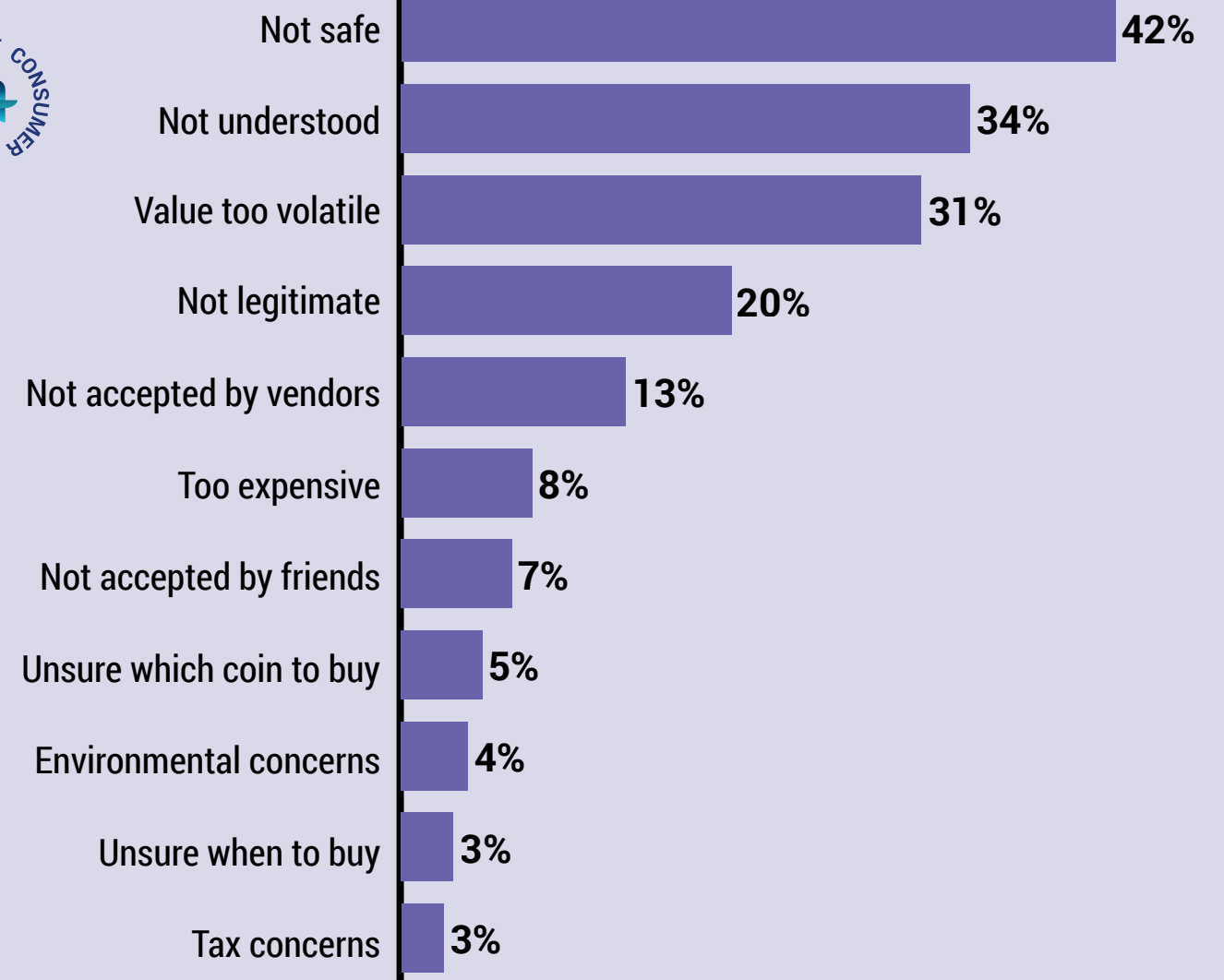
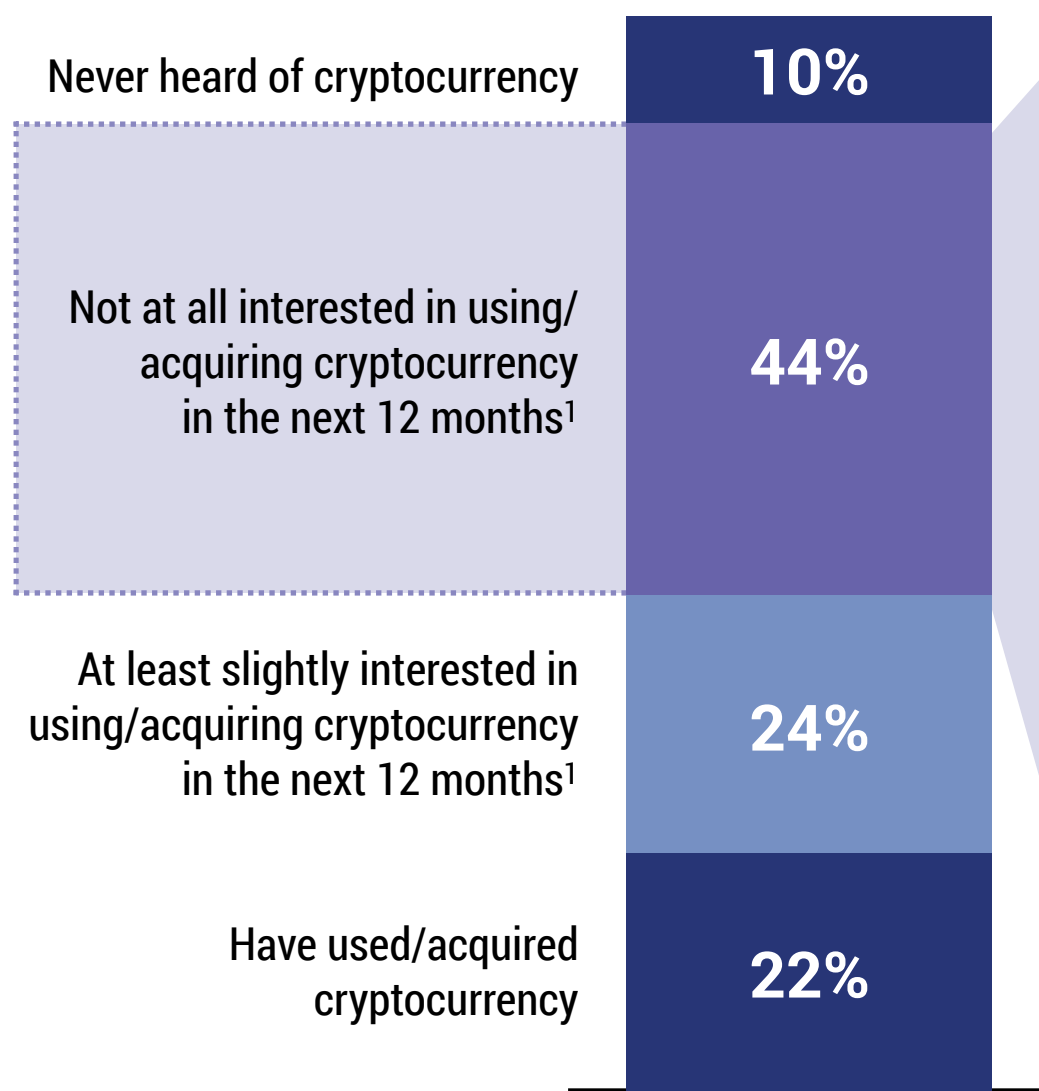


1. Paid for a product/service with cryptocurrency. 2. Traded one cryptocurrency for another. 3. "Staking" refers to the process of committing crypto assets to support a blockchain network and verify transactions. It is available in cryptocurrencies that use a proof-of-stake model to process transactions and results in a reward for those participants that stake their currency (i.e. they generate passive income in the form of that cryptocurrency).
Sources: Activate analysis, Activate 2021 Consumer Technology & Media Research Study (n = 4,018), Company sites

The number of consumers trading crypto has the potential to double in the next 12 months – although many will remain hesitant due to fears of safety, volatility, and a lack of understanding





















CURRENT PARTICIPATION AND FUTURE INTEREST IN USING/ACQUIRING CRYPTOCURRENCY, U.S., 2021, % ADULTS AGED 18+

CONCERNS ABOUT ACQUIRING/USING CRYPTOCURRENCY², U.S., 2021, % ADULTS AGED 18+ WHO ARE NOT INTERESTED IN ACQUIRING/USING CRYPTOCURRENCY IN THE NEXT 12 MONTHS¹



Though Bitcoin and Ethereum remain dominant, innovation will come from Altcoins that focus on solving a range of problems such as faster and lower-cost payments and environmental concerns

TOP TEN CRYPTOCURRENCIES BY MARKET CAPITALIZATION, U.S., SEPT. 2021, BILLIONS USD

	COIN	FOUNDED	MARKET CAPITALIZATION ¹	1-YR GROWTH	KEY DIFFERENCES AND USE CASES
TOP ALTCOINS ⁴	 bitcoin	2009	 \$820B	4.2x	Has the most liquidity and adoption among consumers to date as the first cryptocurrency
	 ethereum	2015	 \$359B	8.8x	Offers the ability to code smart contracts (including NFTs) and promises future innovation through Ethereum 2.0
	 CARDANO	2017	 \$72B	23.8x	Uses an alternate mining method (proof-of-stake) that is more environmentally friendly
	 tether	2014	 \$69B	1.0x	Is a Stablecoin ² that has faced regulatory scrutiny in the U.S.
	 BINANCE COIN	2017	 \$47B	13.7x	Is an exchange-based token created by Binance (largest global crypto exchange), now on its own blockchain
	 XRP	2012	 \$44B	4.1x	Runs digital payments platform RippleNet, which enables high-speed, global money transfers
	 SOLANA	2018	 \$31B	45.8x	Improves decentralized app (DApp ³) creation and scale of alternative mining methods (proof-of-history/-stake)
	 Polkadot	2016	 \$30B	7.3x	Makes different blockchains interoperable , applying beyond crypto (e.g. NFTs, DApps)
	 USD Coin	2018	 \$30B	1.0x	Is a Stablecoin ² offered by Centre Consortium, which holds a reserve of cash and short-term treasuries
	 DOGECOIN	2013	 \$30B	82.7x	Was originally founded as a joke — has since been adopted by speculators and has an active community

Centralized Financial Exchanges are rapidly expanding into new crypto products and services; Decentralized Financial Exchanges are gaining scale and will carve out a meaningful part of the market

FINANCIAL EXCHANGES THAT SUPPORT THE CRYPTOCURRENCY ECOSYSTEM



- Financial exchanges are pushing into **new financial products and services** (e.g. lending), though are facing **regulatory scrutiny** and push-back
- Centralized exchanges offer consumers **trust in an organization** but are criticized for being **against the decentralized nature** of crypto as a central authority




- As decentralized organizations, decentralized exchanges have largely **avoided regulatory enforcement** — as a result they offer **more innovative** services
- Today, the average consumer has challenges learning about and understanding how to use decentralized exchanges, but decentralized exchanges are **true to the decentralized ethos of the crypto community**

1. As of Sept. 2021. 2. In addition to decentralized exchanges, there is a broad ecosystem of decentralized finance that includes a number of non-exchange financial services (e.g. peer-to-peer lending, asset management, infrastructure development, digital identity, digital insurance, payments solutions).

Sources: Activate analysis, Coin Gecko, CoinMarketCap, Nomics

Traditional financial institutions entering crypto have fueled recent growth; there is more growth to be unlocked once there is greater certainty about U.S. and international government regulation

MAJOR CURRENT OR POTENTIAL CRYPTO PARTICIPANTS

BUY-SIDE INSTITUTIONS	SELL-SIDE INSTITUTIONS	ASSET MANAGERS	FINTECH PLATFORMS
			
<ul style="list-style-type: none"> Niche crypto funds are no longer the only ones trading crypto – traditional hedge funds have started to test strategies Family offices and endowments are increasingly entering crypto as a long-term investment Traditional funds get exposure by investing in crypto companies 	<ul style="list-style-type: none"> Large banks are looking to serve their clients in the changing crypto landscape with their own trading and custody platforms New B2B partners (e.g. NYDig, Galaxy) have emerged to serve these institutions Banks often start with solutions for their high-net-worth clients 	<ul style="list-style-type: none"> Asset managers will take advantage of a crypto ETF (if and when it is approved by regulators) Already, crypto-focused funds (e.g. Grayscale) offer trusts based on crypto futures that track cryptocurrency prices Many asset managers have already filed for crypto ETFs with the SEC 	<ul style="list-style-type: none"> Platforms are creating new entry points for consumers into crypto with the security of a long-standing and recognizable brand Though they offer ways to invest today, the real value is in new crypto use cases core to their product in the future

*The **BIGGEST BARRIER** for institutions is regulatory compliance and uncertainty*



UNITED STATES

Currently debating and writing a regulatory framework for crypto



CHINA

Actively trying to stifle and ban crypto as an existential monetary threat



EUROPE

Leading the world in fostering an ecosystem of innovation for crypto

The cryptocurrency ecosystem is rapidly evolving with potentially disruptive new companies exploring new use cases and applications

EXAMPLE CRYPTOCURRENCY ECOSYSTEM PARTICIPANTS

CUSTODY & DIGITAL WALLETS



PAYMENTS & TRANSFERS



GAMING



MINING



DAPPS & SMART CONTRACTS (Decentralized applications)



NFTs (Non-Fungible Tokens)



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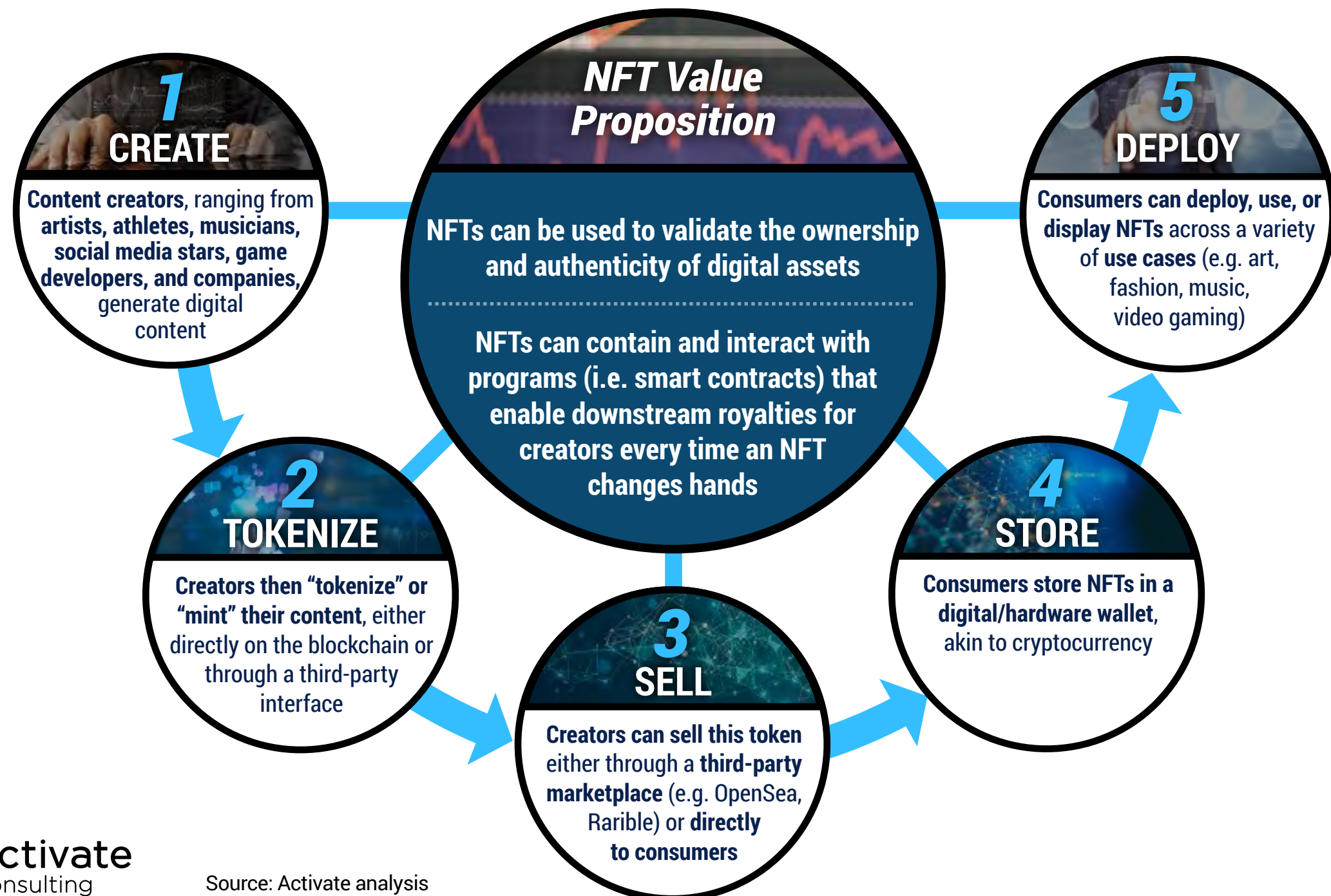
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Activate Point of View on NFTs: as more consumer time migrates to digital experiences and interest grows in the metaverse, we believe that every technology and media company will need an NFT strategy

Why now:	NFTs have exploded onto the scene with total sales exceeding \$8B in 2021 YTD ¹
What does “NFT” mean	NFTs, or non-fungible tokens, are unique blockchain-based digital assets such as artworks, videos, games, recordings, etc.
Who is playing:	<p>In addition to well-known memes/one-offs, many major companies are entering the space and experimenting with NFTs, whether the use case is collecting, betting, trading, gaming, or displaying</p> <ul style="list-style-type: none"> • This diverse list includes Coca Cola, Dolce & Gabbana, Gucci, Marvel, Mattel, NBA, Nike, TikTok, and WWE — to name a few
Current market:	NFTs could be experiencing a speculative bubble
Looking forward:	<p>Nevertheless, NFTs have the potential to succeed and prove useful moving forward:</p> <ul style="list-style-type: none"> • NFTs tap into existing consumer behaviors such as collecting, betting, and supporting content creators — NFT users significantly over-index on these behaviors • Creators/companies benefit from a new revenue source and the potential to further monetize existing IP • Every technology and media company will need an NFT strategy, in part to prepare for a potential metaverse relying on NFTs
Requirements for NFTs to see mainstream adoption:	<p>Requirements include:</p> <ul style="list-style-type: none"> • Authenticity solutions, providing a degree of verification on the initial creation of NFTs • Standards for storage of underlying metadata (unique attributes beyond ownership) • Sustainable energy footprint to add NFTs to the blockchain • Future regulation that is friendly to NFT development (e.g. no high taxes, trading restrictions, emissions restrictions) • Ability to buy and transfer NFTs across platforms, especially social media / video gaming • Low costs to create NFTs (in the form of mint/gas fees²) • Participation at scale in NFTs from companies holding major IP (e.g. Disney, Warner Bros.)

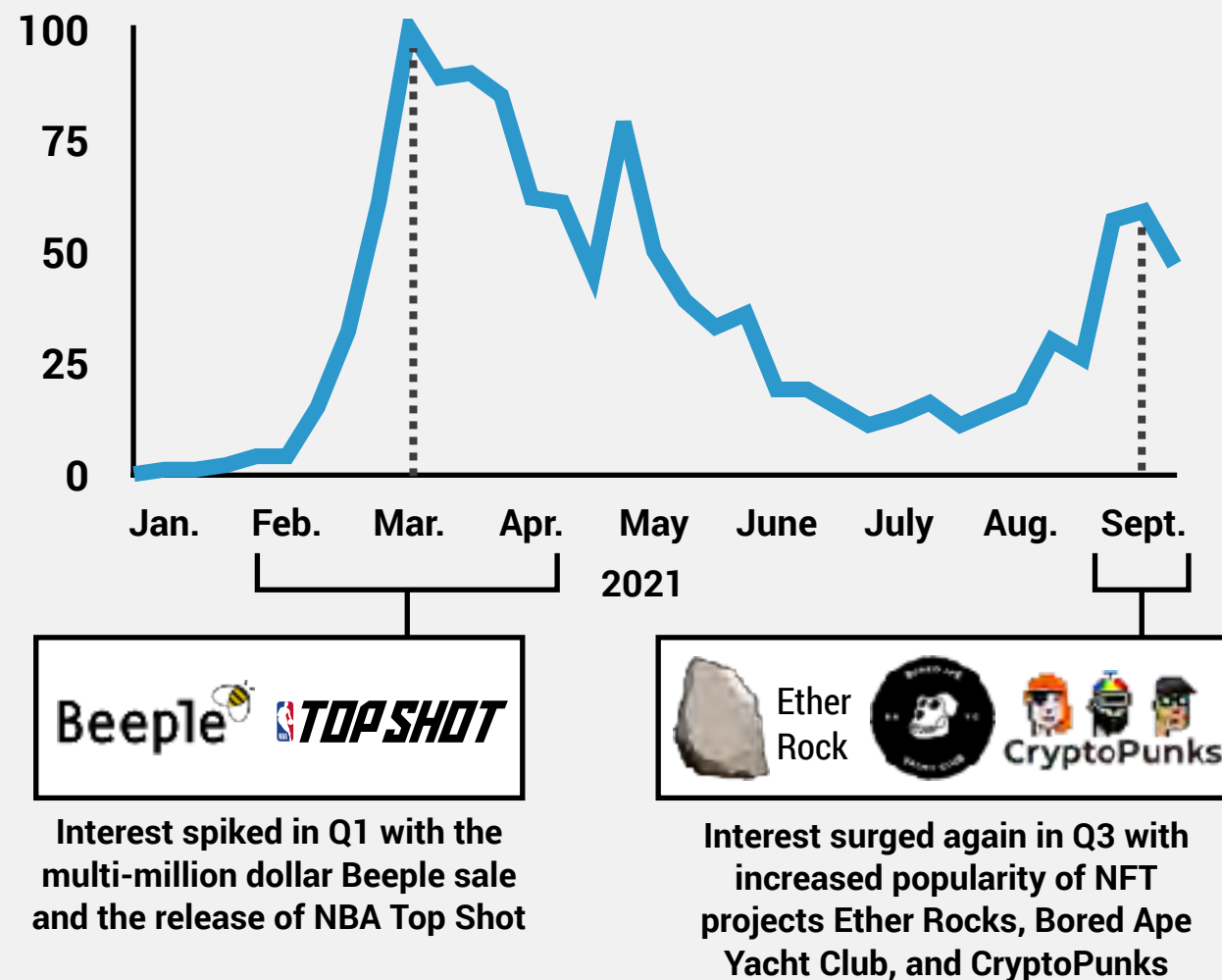
NFTs provide a unique value proposition for owners of digital assets, with broad applications across all IP, including art, videos, and video gaming

PATH OF AN NFT: HOW NFTS ARE CREATED, SOLD, AND DEPLOYED

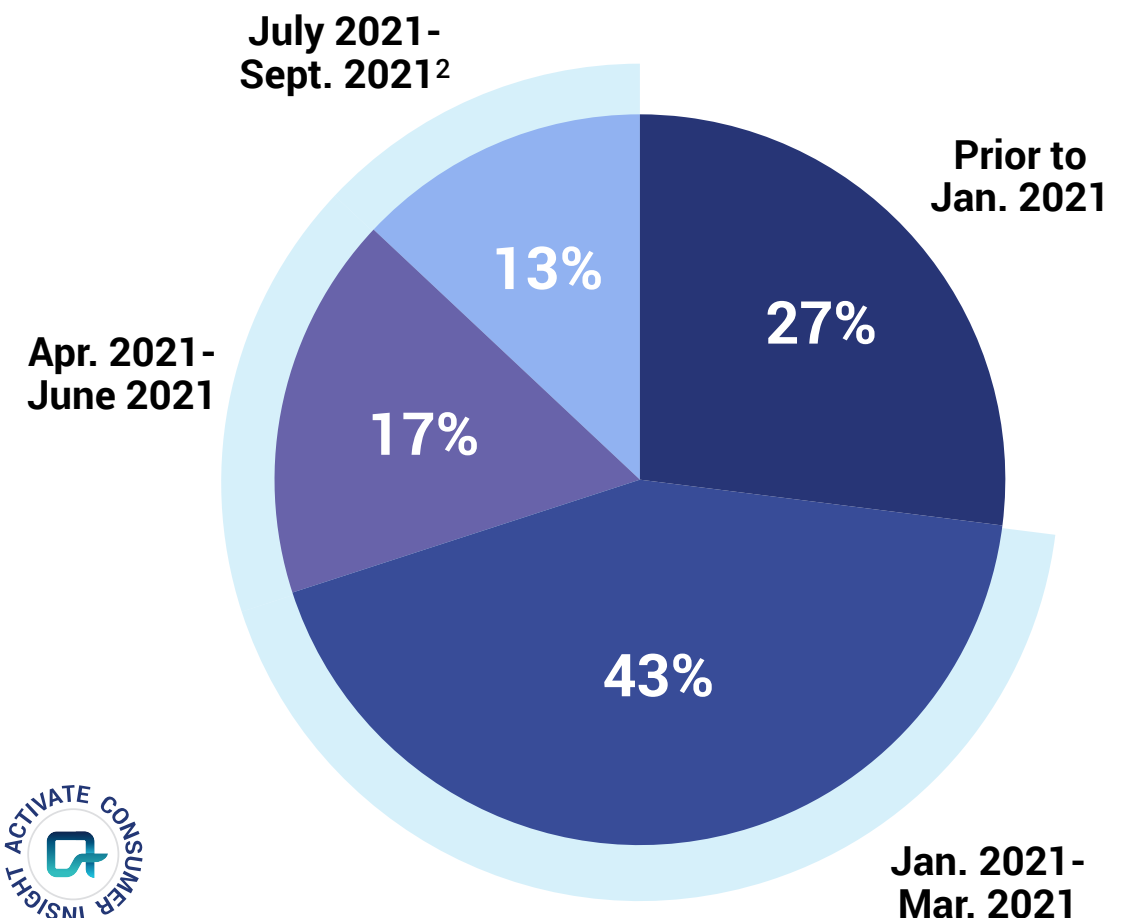


2021 was the breakout year for NFTs, with major increases in both interest and purchase activity; 73% of U.S. NFT buyers made their first purchase this year

GOOGLE SEARCH INTEREST IN NFTS¹,
U.S., JAN. 2021-SEPT. 2021², INDEXED TO PEAK INTEREST



FIRST NFT PURCHASE BY TIME PERIOD,
U.S., 2021, % NFT BUYERS³

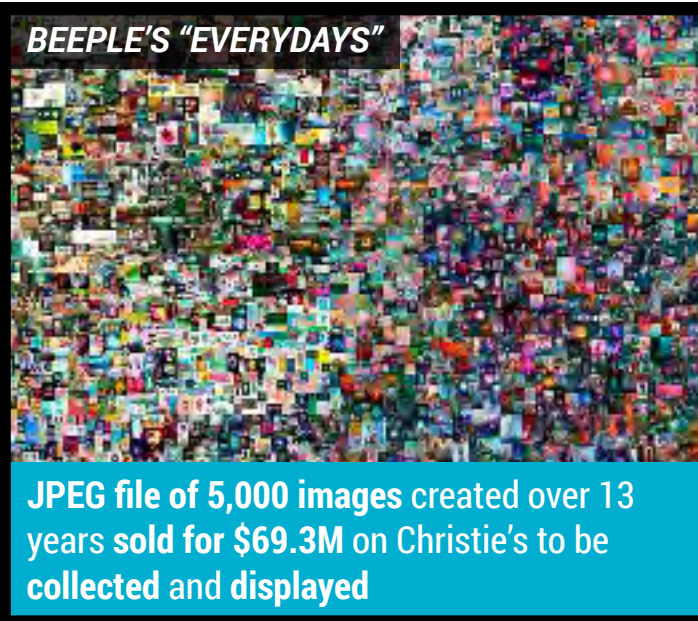


73% of NFT buyers made their first purchase in 2021

A broad set of industries are now creating and testing NFT products: Art and Fashion

EXAMPLE ARTISTS AND COMPANIES OFFERING NFTS BY INDUSTRY

ART EXAMPLES



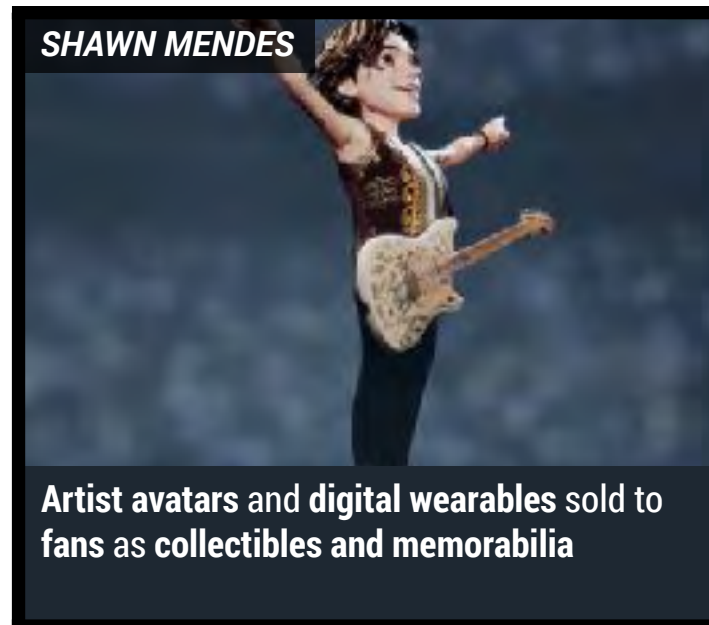
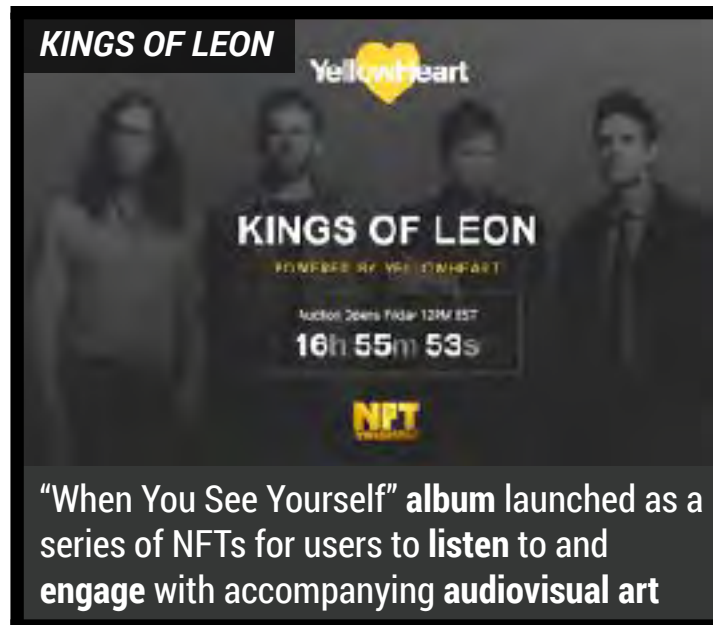
FASHION EXAMPLES



A broad set of industries are now creating and testing NFT products: Music and Sports

EXAMPLE ARTISTS AND COMPANIES OFFERING NFTS BY INDUSTRY

MUSIC EXAMPLES



SPORTS EXAMPLES



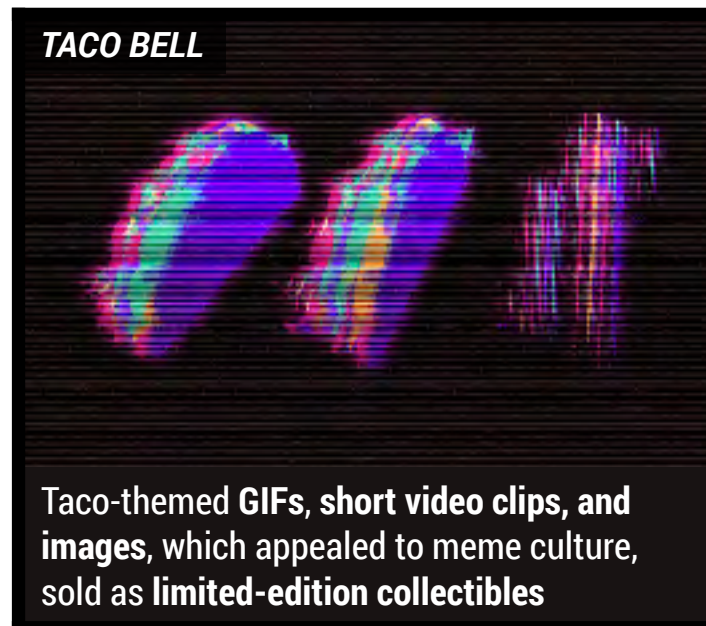
A broad set of industries are now creating and testing NFT products: Video Gaming and Consumer Businesses

EXAMPLE COMPANIES OFFERING NFTS BY INDUSTRY

VIDEO GAMING EXAMPLES

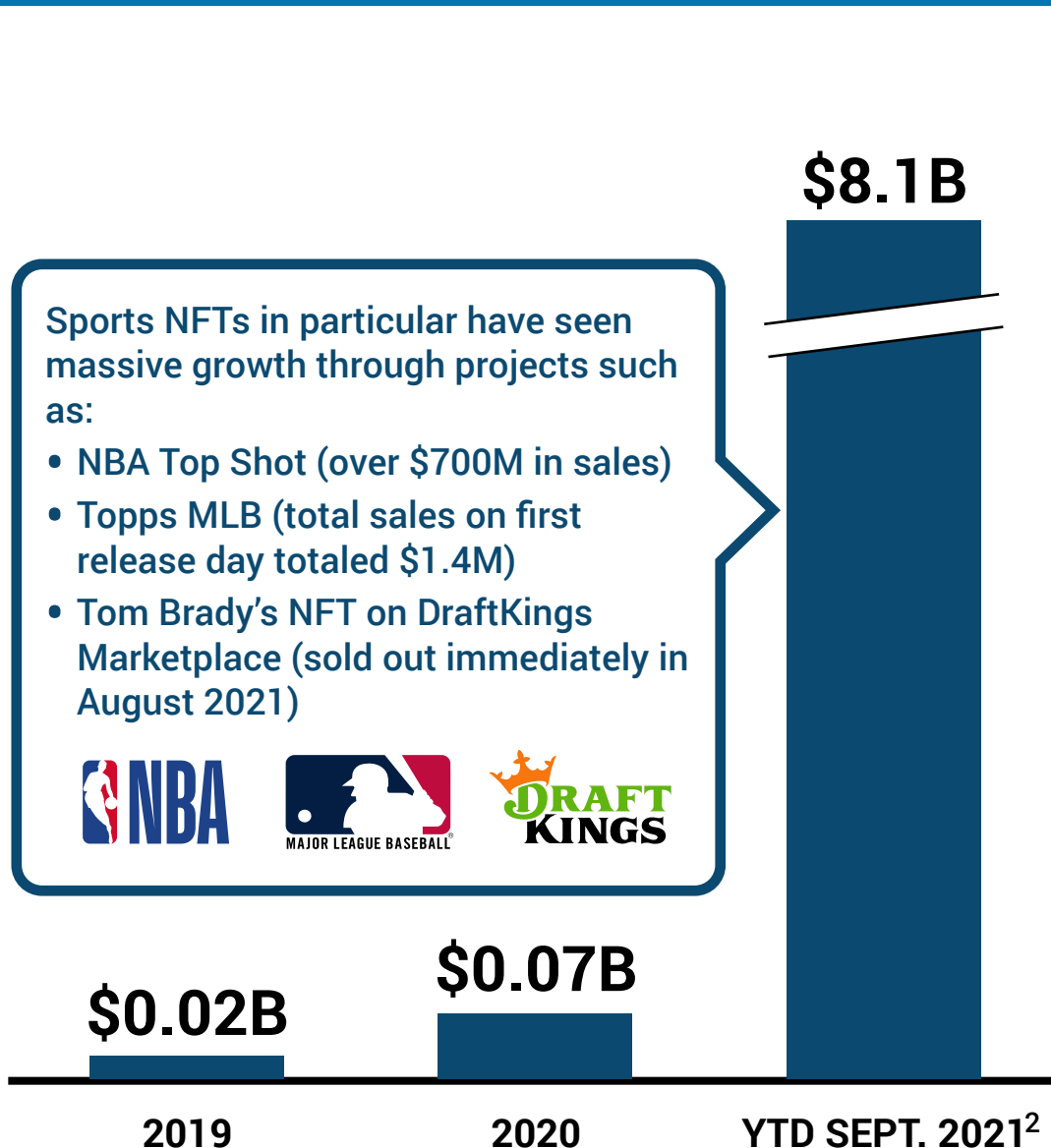


CONSUMER BUSINESS EXAMPLES



NFTs have seen explosive growth in global sales, from less than \$100M in 2020 to over \$8B in 2021 YTD; our research shows that the majority of those participating plan to continue in the next year

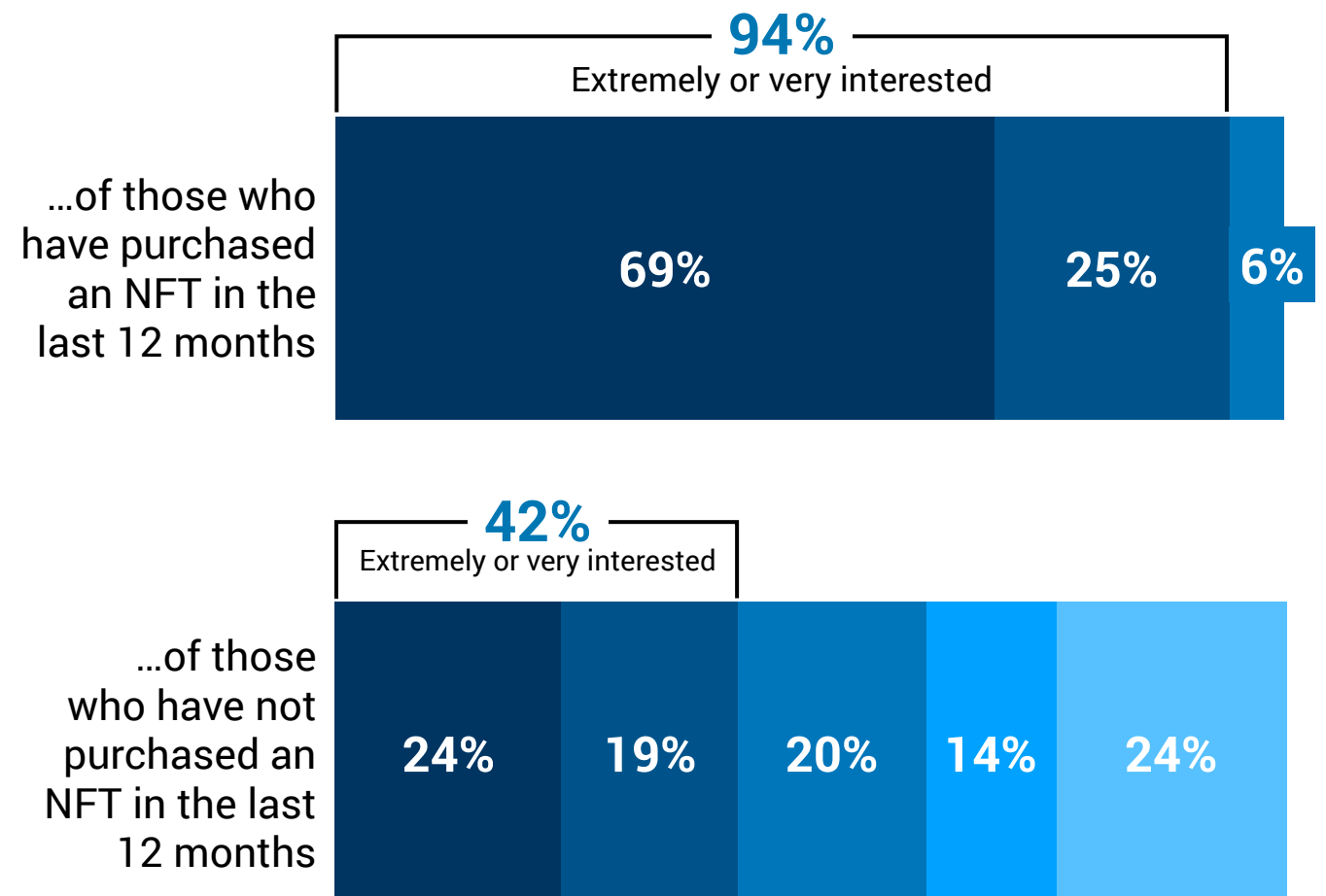
**TOTAL SALES OF NFTS¹,
GLOBAL, 2019-YTD SEPT. 2021², BILLIONS USD**



**INTEREST IN PURCHASING NFTS IN THE NEXT 12 MONTHS³,
U.S., 2021, % ADULTS AGED 18+ AWARE OF NFTS⁴**

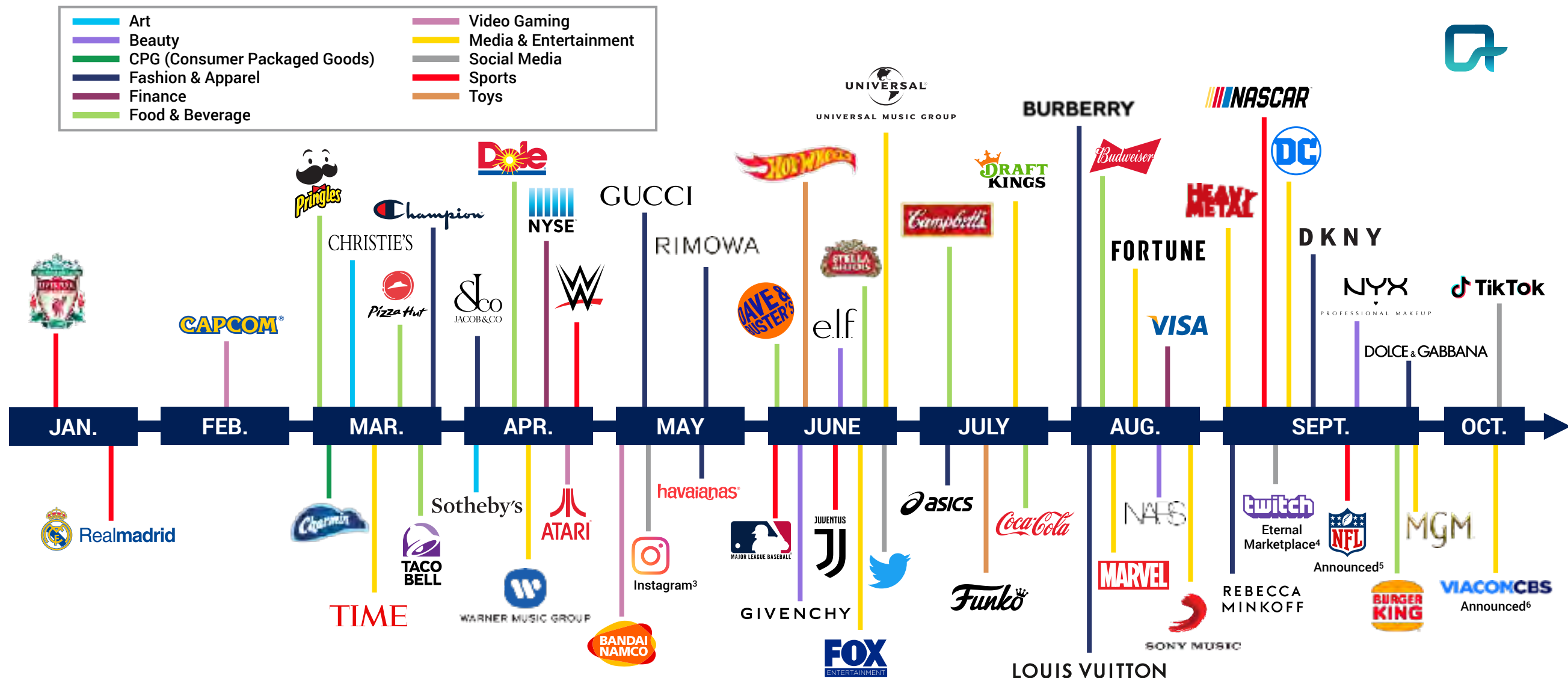


Extremely Interested Very Interested
Somewhat Interested Slightly Interested
Not at All Interested



Major brands and tech companies are entering into the space and will expand their NFT strategies

TIMELINE OF COMPANIES ENTERING THE NFT SPACE¹, U.S., JAN. 2021-OCT. 2021²



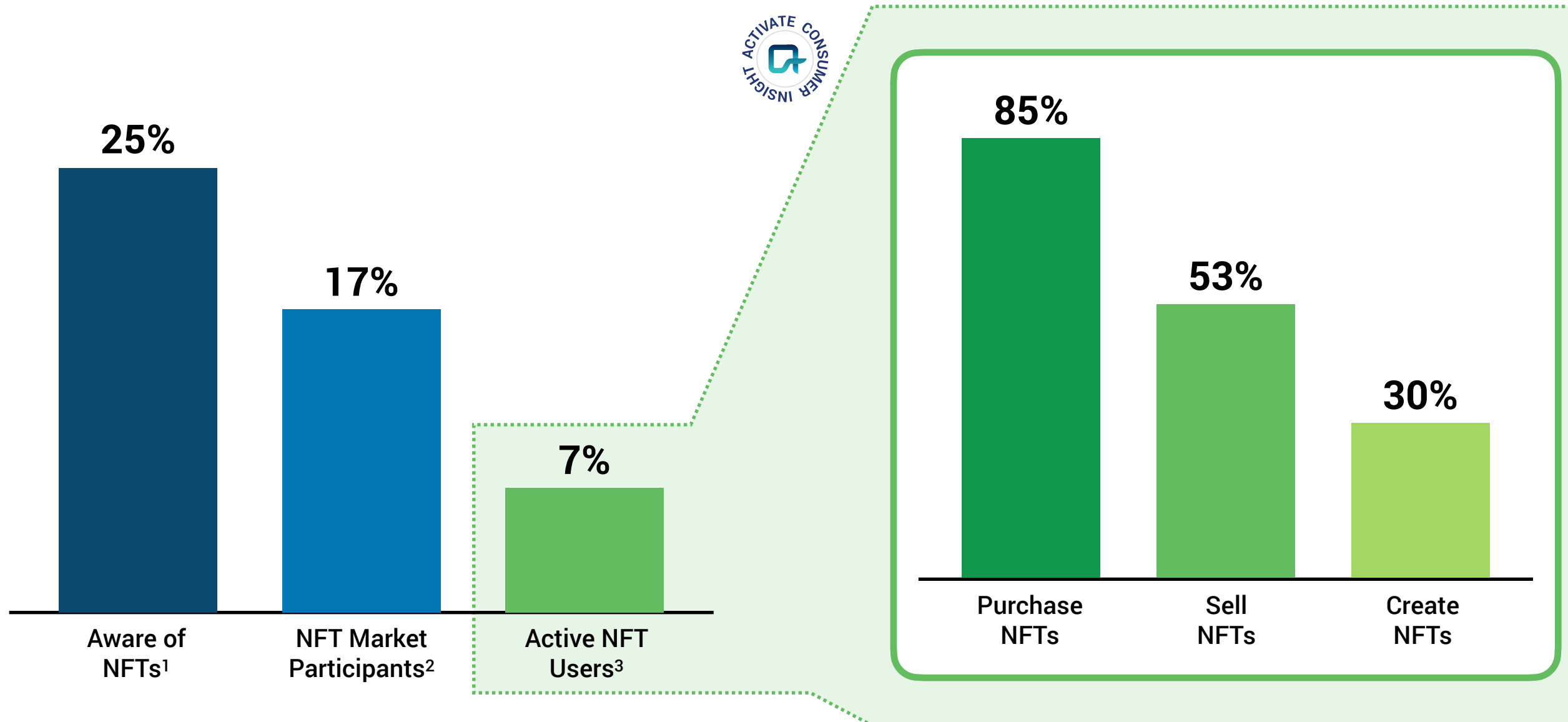
1. Order of NFTs within month and size of timeline lines are for illustrative purposes, not indicative of exact launch dates or importance. Timeline is not exhaustive. 2. As of October 4, 2021. 3. Instagram is experimenting with NFT integration into its app. 4. Eternal, an NFT marketplace featuring Twitch streamer clips as NFTs, received backing from Mark Cuban and Coinbase. 5. The NFL announced a deal with Dapper Labs to create digital video highlights as NFTs on September 29, 2021. 6. ViacomCBS announced a deal with RECUR to create a fan-focused platform around buying, collecting, and trading NFTs on October 13, 2021.

Sources: Activate analysis, AdAge, ARTnews, Business of Fashion, Company press releases, Company sites, Fashion Network, Forbes, Glossy, The Information, Markets Insider, OpenSea, TechCrunch, Variety, The Verge, Vogue Business

The NFT market is still in its infancy: only 25% of U.S. adults are familiar with NFTs, and only 7% are active users

NFT AWARENESS AND ADOPTION, U.S., 2021,
% ADULTS AGED 18+

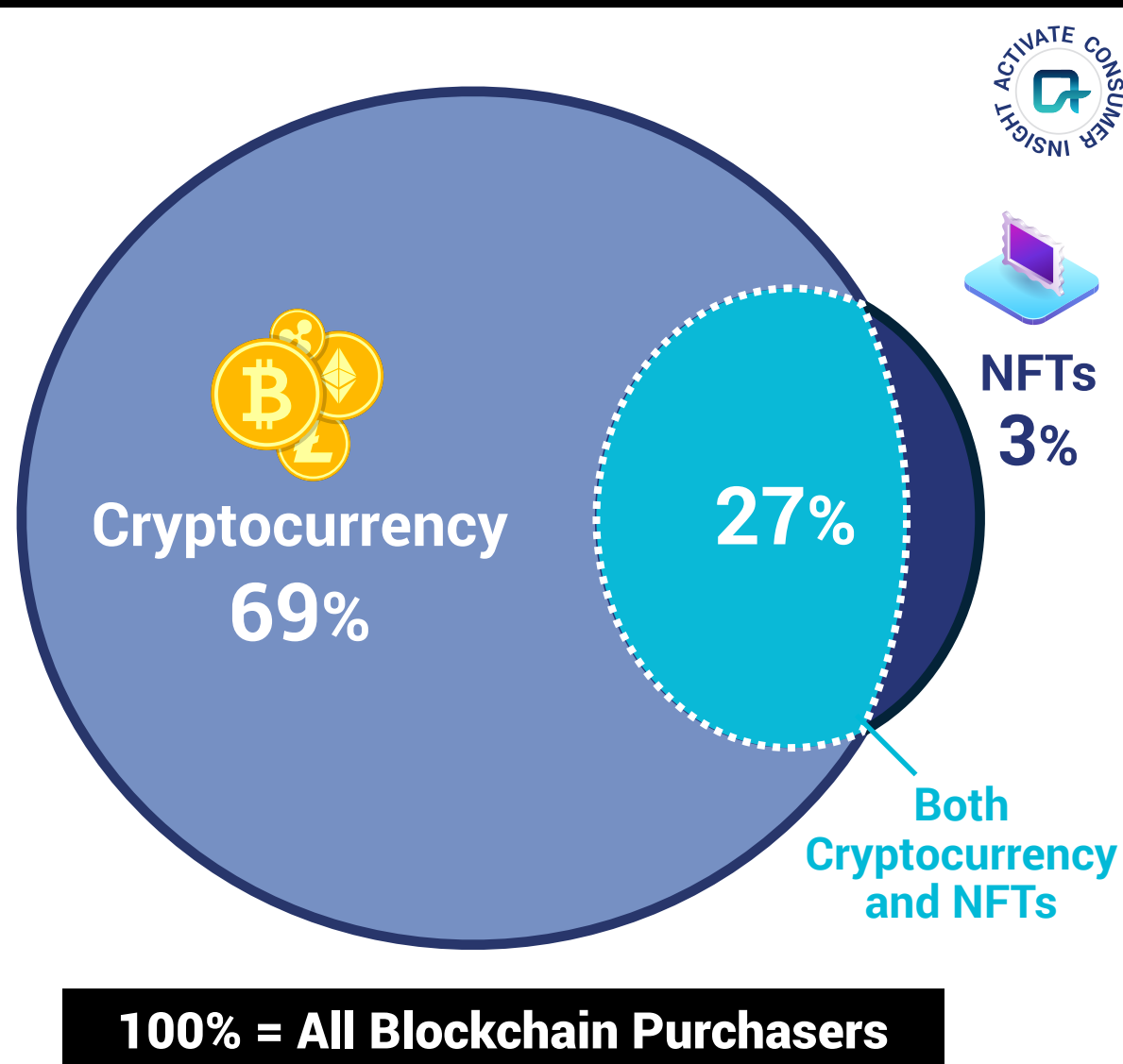
ACTIVE USER PARTICIPATION IN NFT MARKET BY ACTIVITY,
U.S., 2021, % ACTIVE NFT USERS³



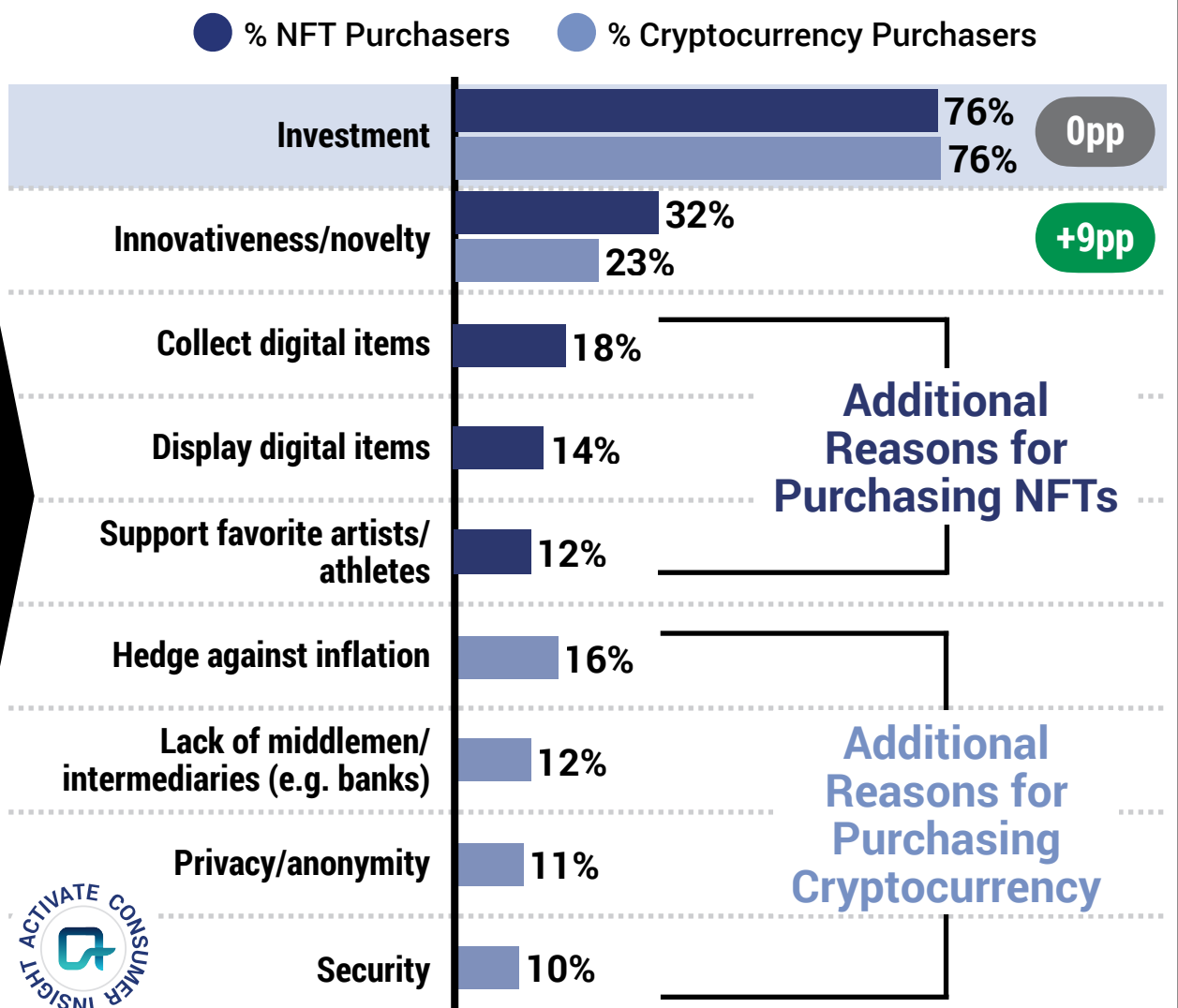
1. "Aware of NFTs" is defined as consumers who know what NFTs are. 2. "NFT market participants" are defined as adults aged 18+ who research/discuss, browse, bid on, purchase, sell, or create NFTs. 3. "Active NFT users" are defined as adults aged 18+ who purchase, sell, or create NFTs.
Sources: Activate analysis, Activate 2021 Consumer NFT Research Study (n = 1,040), Activate 2021 Consumer Technology & Media Research Study (n = 4,018)

Currently, NFTs are a subset of cryptocurrency, with investment as the top reason behind purchasing – in fact, 89 percent of NFT buyers are also cryptocurrency users

BLOCKCHAIN PURCHASING USE CASES¹, U.S., 2021, % BLOCKCHAIN PURCHASERS²



TOP REASONS³ FOR PURCHASING NFTS/CRYPTOCURRENCY, U.S., 2021, % BLOCKCHAIN PURCHASERS²



1. Figures do not sum to 100% due to rounding. 2. "Blockchain purchasers" are defined as adults aged 18+ who have purchased NFTs in the last 12 months or have ever purchased cryptocurrency. 3. Consumers were asked to select up to two top reasons. Sources: Activate analysis, Activate 2021 Consumer NFT Research Study (n = 1,040), Activate 2021 Consumer Technology & Media Research Study (n = 4,018)

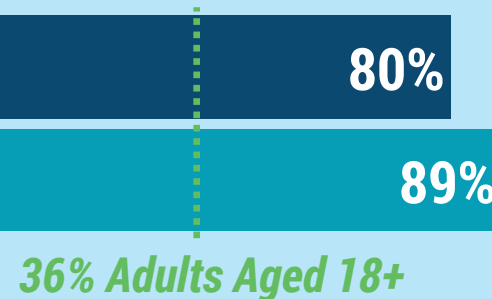
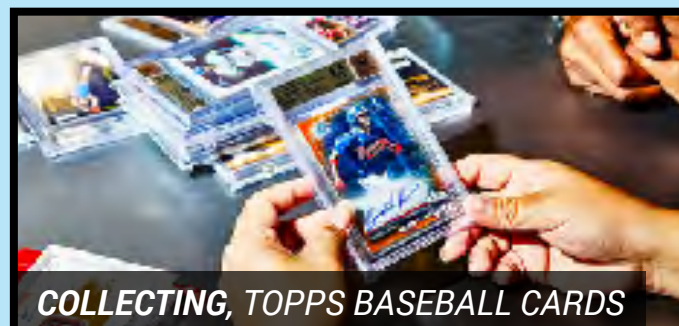
Consumers are likely to participate in NFTs moving forward because they tie into existing behaviors such as collecting, betting, and supporting content creators

PARTICIPATION IN SELECT BEHAVIORS, U.S., 2021, % ADULTS AGED 18+

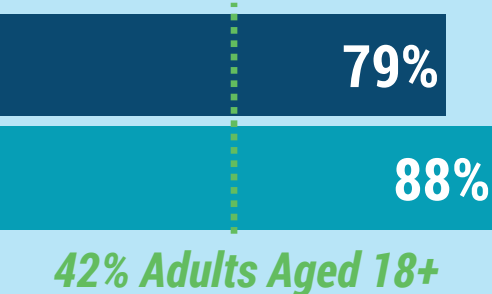


■ % NFT Market Participants⁴
■ % NFT Active Users⁵

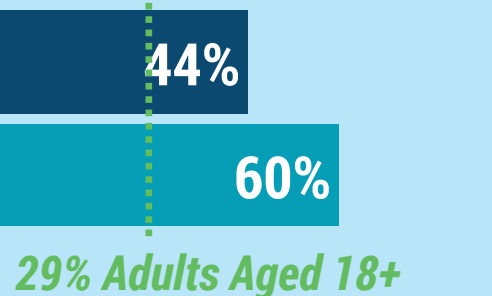
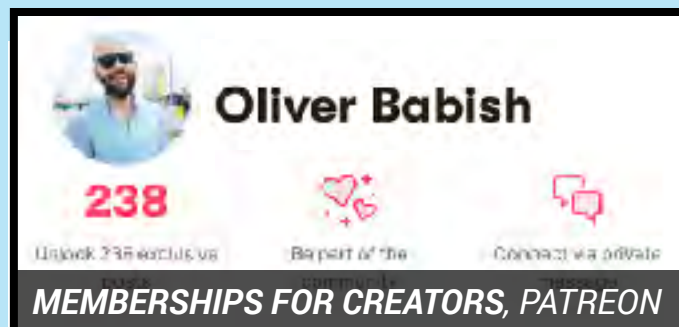
COLLECTING¹



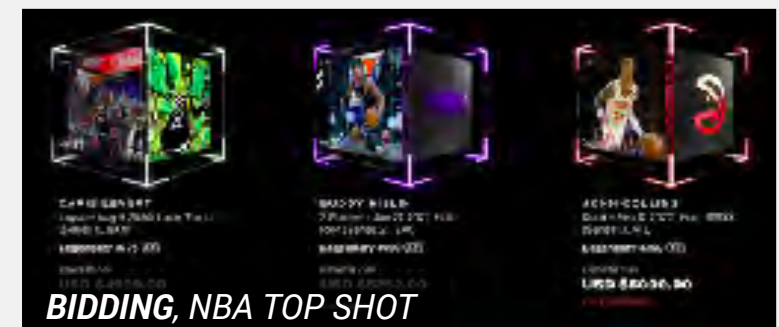
BETTING/ BIDDING²



SUPPORTING ARTISTS / FAN CULTURE³



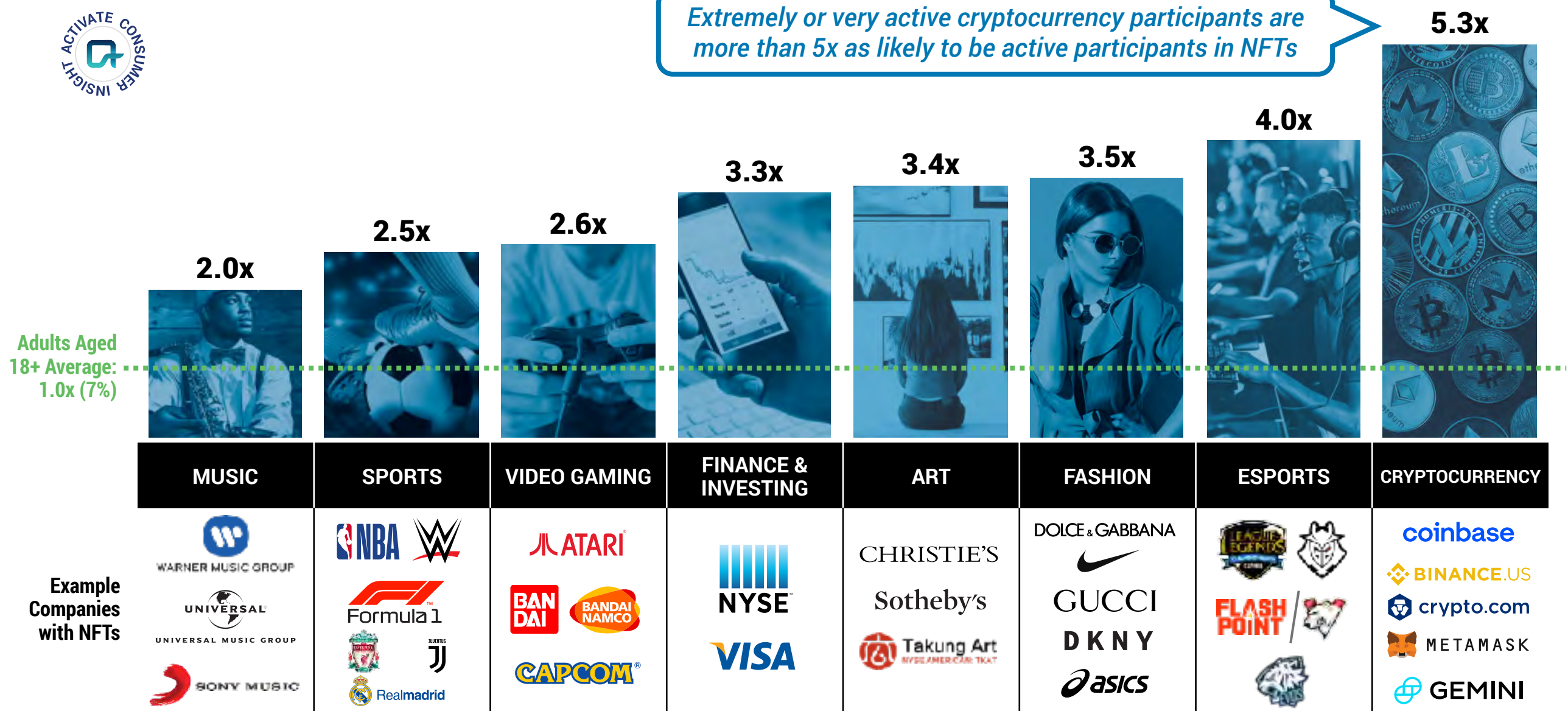
NFT EQUIVALENT EXAMPLES



1. "Collecting" includes luxury goods, art, comic books, trading cards, coins, stamps, or music collectibles. 2. "Betting/bidding" includes sports betting, esports betting, and bidding on online auctions. 3. "Supporting artists / fan culture" includes sending money to artists, creators, or athletes. 4. "NFT market participants" are defined as adults aged 18+ who research/discuss, browse, bid on, purchase, sell, or create NFTs. 5. "NFT active users" are defined as adults aged 18+ who purchase, sell, or create NFTs. Sources: Activate analysis, Activate 2021 Consumer NFT Research Study (n = 1,040), Activate 2021 Consumer Technology & Media Research Study (n = 4,018), CoinDesk, CryptoPunks, SB Nation

We expect to see NFT growth across a broader set of industries, driven by consumer interest

CONSUMER PARTICIPATION IN NFTS BY INDUSTRY INVOLVEMENT¹,
U.S., 2021, INDUSTRY INDEXED TO NFT ACTIVE USERS² BY INVOLVEMENT



1. "Industry involvement" is defined as being "extremely" or "very" actively involved in the industry over the last 12 months.

2. "NFT active users" are defined as adults aged 18+ who purchase, sell, or create NFTs.

Sources: Activate analysis, Activate 2021 Consumer Technology & Media Research Study (n = 4,018), AdAge, Billboard, Bloomberg, CoinDesk, Company press releases, Company sites, Esports News, Forbes, LA Times, Variety, The Verge, Vogue

NFTs will become a mainstream behavior, while creating value for consumers and IP owners; every technology and media company will need an NFT strategy

1

The line between physical and virtual experiences is blurring — spaces and exhibits with a mix of physical and digital content are growing, and over 80% of consumers believe a brand's digital presence is equally as important to its in-store presence

2

Consumers are increasingly interacting with companies and brands in fully digital environments — especially in video gaming through “skins” and other virtual items

3

As more consumer time migrates to digital experiences / the metaverse, **technology and media companies will all need an NFT strategy to future-proof their content**, or risk becoming less relevant

4

NFTs can become a way for companies with large amounts of IP to unlock new and potentially lucrative revenue streams by offering unique items and engaging top fans — there is significant liquid value in the market today

5

Companies will need to approach NFTs with a long-term point of view to avoid speculative bubbles and scams, which ultimately could harm their brand

The winners in the NFT space are far from decided; new players, technologies, and use cases will continue to emerge

CREATORS¹

INDIVIDUALS / SMALL GROUPS



MAJOR COMPANIES



MARKETPLACES

NFT-FIRST MARKETPLACES



TRADITIONAL ECOMMERCE MARKETS



USER-POWERED MARKETS



CRYPTO EXCHANGES



AUCTION HOUSES



END-USE CASES

VIRTUAL WORLDS / SOCIAL PLATFORMS



DISPLAYS / VIRTUAL MUSEUMS



VIDEO GAMING

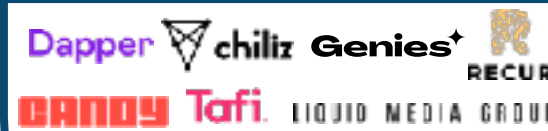


MUSIC STREAMING



INFRASTRUCTURE

CORPORATE TOKEN PARTNERS²



BLOCKCHAIN PROTOCOLS³



NFT DAPPS, PLATFORMS, & PROJECTS⁴



STORAGE & MANAGEMENT



Note: Company list is not exhaustive. Companies are categorized according to their primary category. As of October 4, 2021. 1. "Creators" include individuals and companies who have launched and announced NFTs. 2. "Corporate token partners" are defined as companies providing technology to enable partners to launch NFT products. 3. "Blockchain protocols" are defined as the underlying technology that NFTs are minted on. 4. "NFT dapps, platforms, & projects" are defined as platforms that enable users to participate in and build the NFT ecosystem. Sources: Activate analysis, AdAge, ARTnews, Barrons, Billboard, Bloomberg, Business of Fashion, Coin Market Cap, CoinDesk, Company press releases, Company sites, DappRadar, Deal Room, Esports News, Fashion Network, Forbes, The Information, LA Times, Ledger Insights, Markets Insider, The New York Times, NonFungible, OpenSea, Variety, The Verge, Vogue, Wonder

Requirements for NFTs to succeed going forward, from speculation to mainstream adoption





MOVING TO RESOLUTION



PROGRESS MADE BUT UNCERTAIN



HIGHLY UNCERTAIN

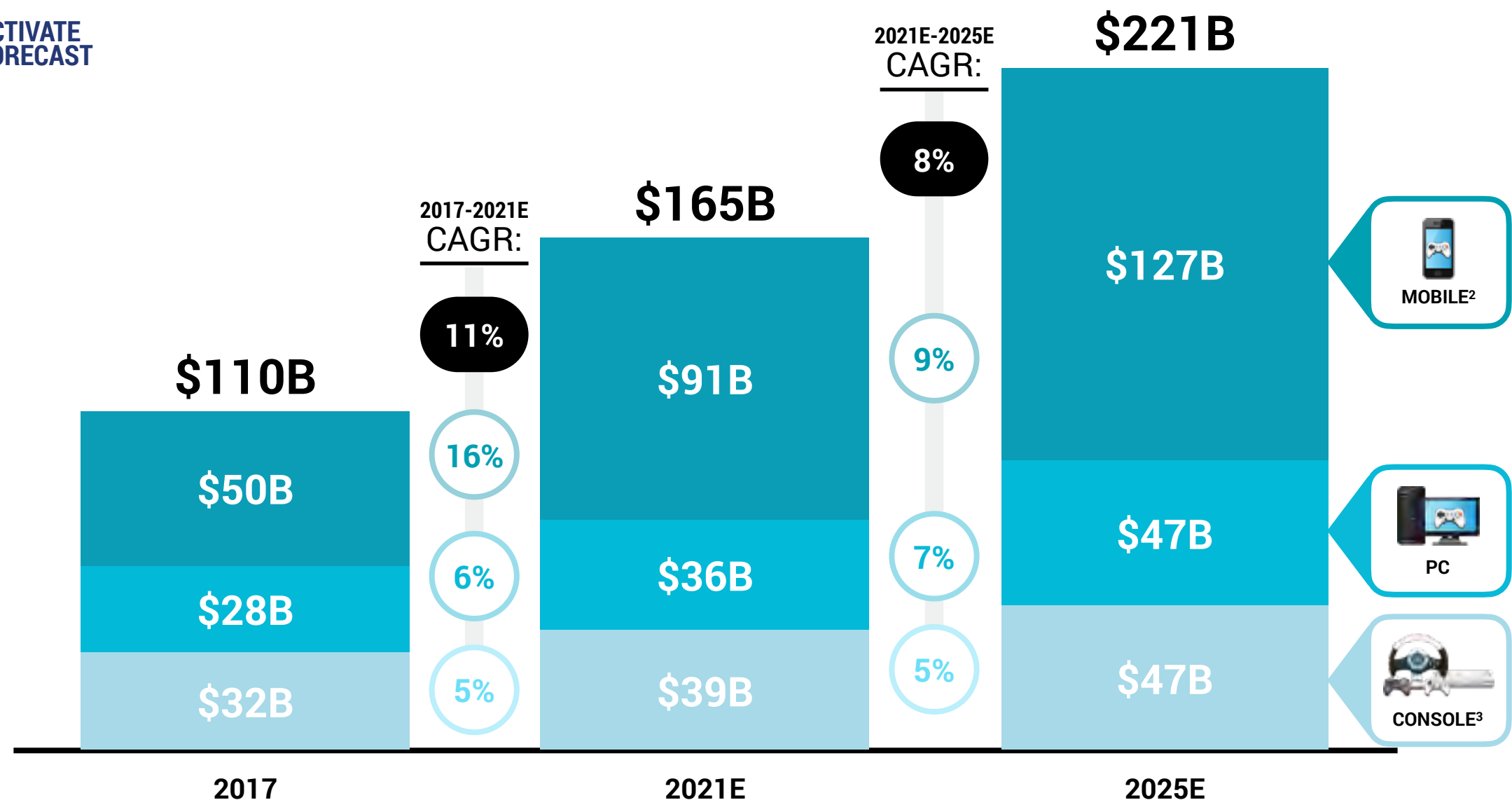
Key requirements for NFT success:		Current status:	
 PARTICIPATION OF IP HOLDERS	Companies holding major IP will participate at scale in NFTs (e.g. Disney, Warner Bros.)		Companies across industries are embracing NFTs, with many media companies developing long-term strategies
	Mint/gas fees ¹ for NFTs do not serve as a barrier to entry		While Ethereum gas fees ¹ fluctuate widely, several alternative protocols offer creators lower fee alternatives (e.g. Tezos, Near)
	NFTs can be bought and transferred across platforms, especially social media / video gaming		Of the leading social media platforms (e.g. Facebook, Instagram, TikTok, Twitter, Snapchat) and video gaming platforms (e.g. Fortnite, League of Legends, Dota II), only TikTok and Twitter currently enable users to buy NFTs or transfer them between platforms
	Standards arise for the storage of NFT metadata (unique attributes beyond ownership), either on-chain or off-chain		On many platforms, NFT buyers purchase a link that refers to the digital asset rather than the asset itself; users must rely on the company hosting the website to stay in business to prove authenticity long term. While there are solutions emerging (e.g. IPFS, Freezing), they are not the default and are not seen in all major NFT projects
	Platforms / technology companies are able to provide a degree of verification on the initial minting of NFTs and avoid problems with IP laws		The burden of proving the authenticity of the underlying digital asset is on the owner, which leaves consumers vulnerable
	NFTs can be minted on the blockchain with a sustainable energy footprint		The vast majority of NFTs are minted on the Ethereum blockchain, which leverages an energy-intensive proof-of-work model; Ethereum has claimed to be moving to proof-of-stake model (which has lower energy requirements) for several years but has yet to complete this transition
	Future regulation does not significantly stifle the creation, selling, or purchase of NFTs (e.g. high taxes, trading restrictions, emissions restrictions)		Regulatory frameworks governing cryptocurrency and NFTs are still very nascent

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Audio: More Streaming Services, Live, and Social Drive Growth	171
Data Solutions and Enterprise Automation: Technology Advances Create Breakthrough Capabilities	188

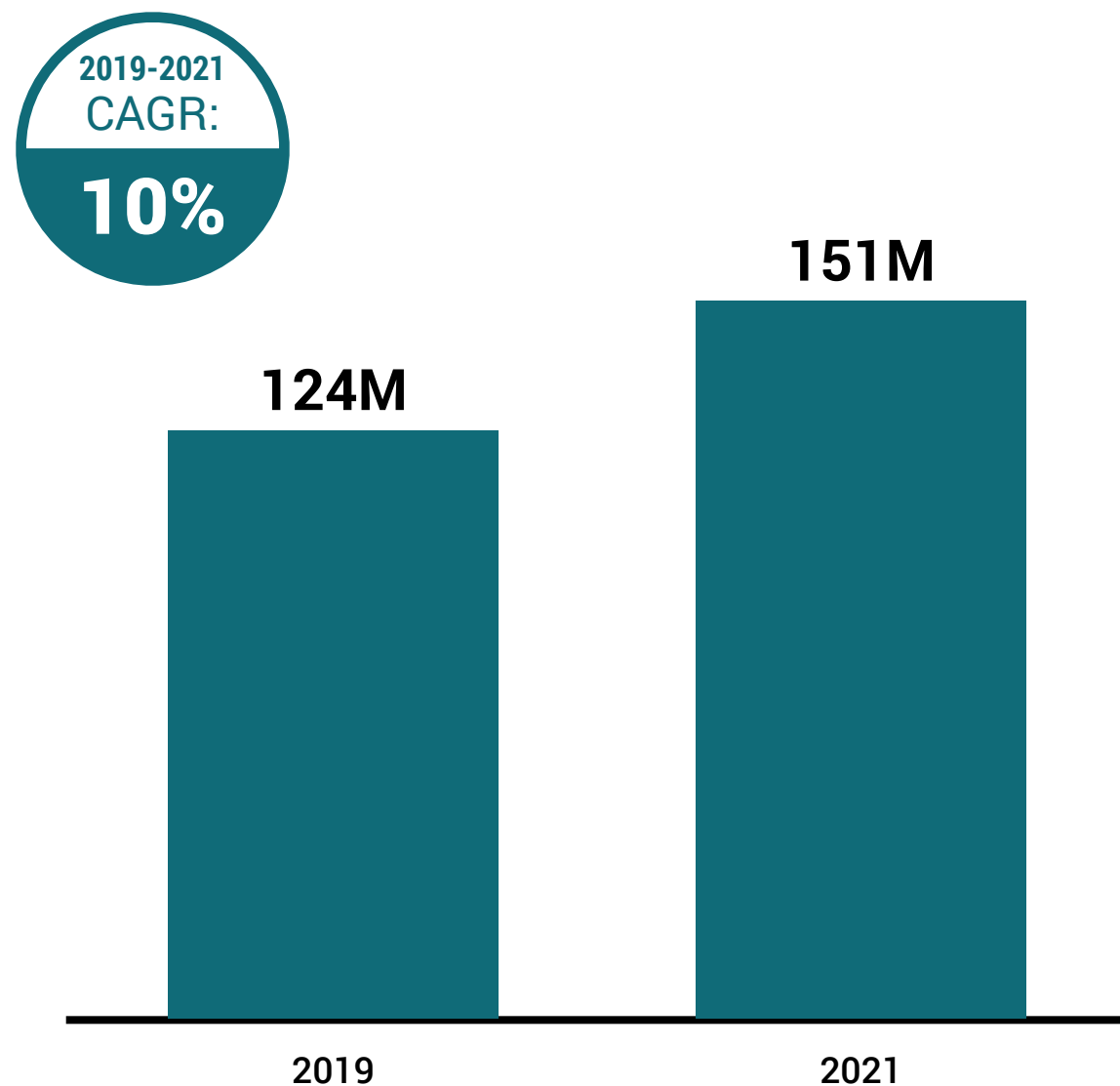
The global video game industry will grow across all major platforms, with mobile gaming continuing to represent the largest and fastest growing portion of the market

CONSUMER VIDEO GAME REVENUE BY PLATFORM¹, GLOBAL, 2017 VS. 2021E VS. 2025E, BILLIONS USD

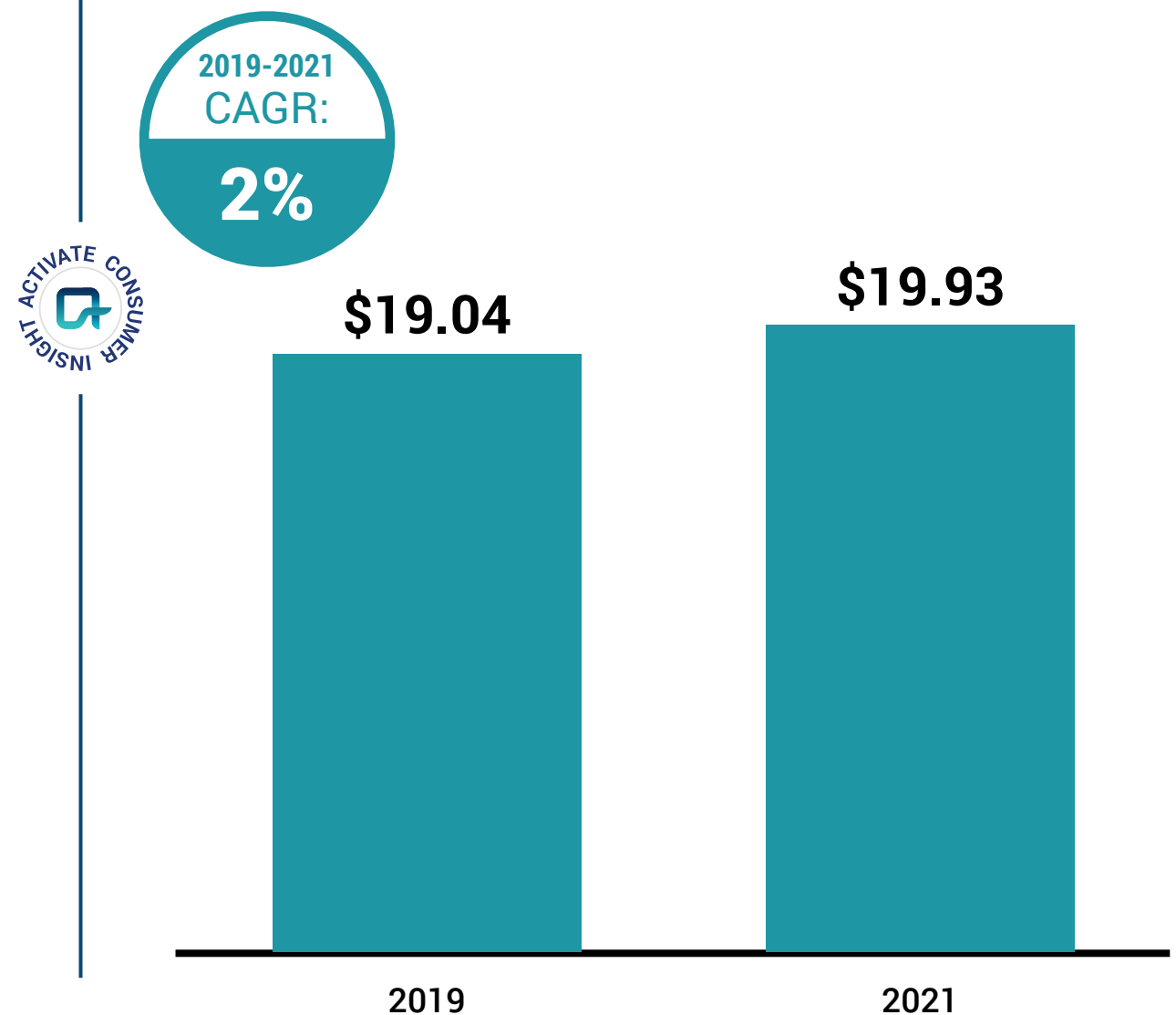


The number of gamers has significantly increased while average spend per gamer has continued to grow

**GAMING POPULATION,
U.S., 2019 VS. 2021, MILLIONS GAMERS¹**



**AVERAGE MONTHLY VIDEO GAME DOLLAR SPEND² PER
GAMER¹, U.S., 2019 VS. 2021, USD PER MONTH**

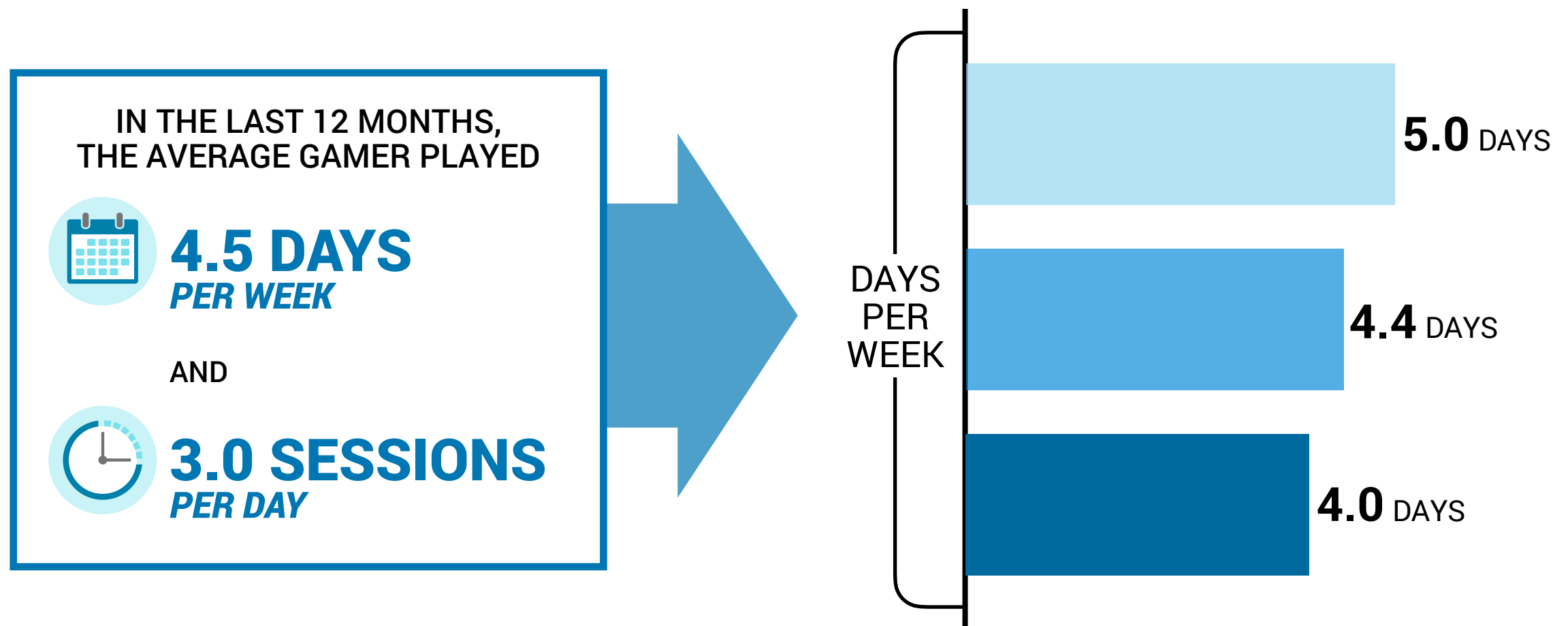


The average gamer plays most of the days in a week and multiple times a day

AVERAGE GAMING FREQUENCY BY DEVICE, U.S., 2021, DAYS BY GAMERS¹ USING DEVICE FOR GAMING



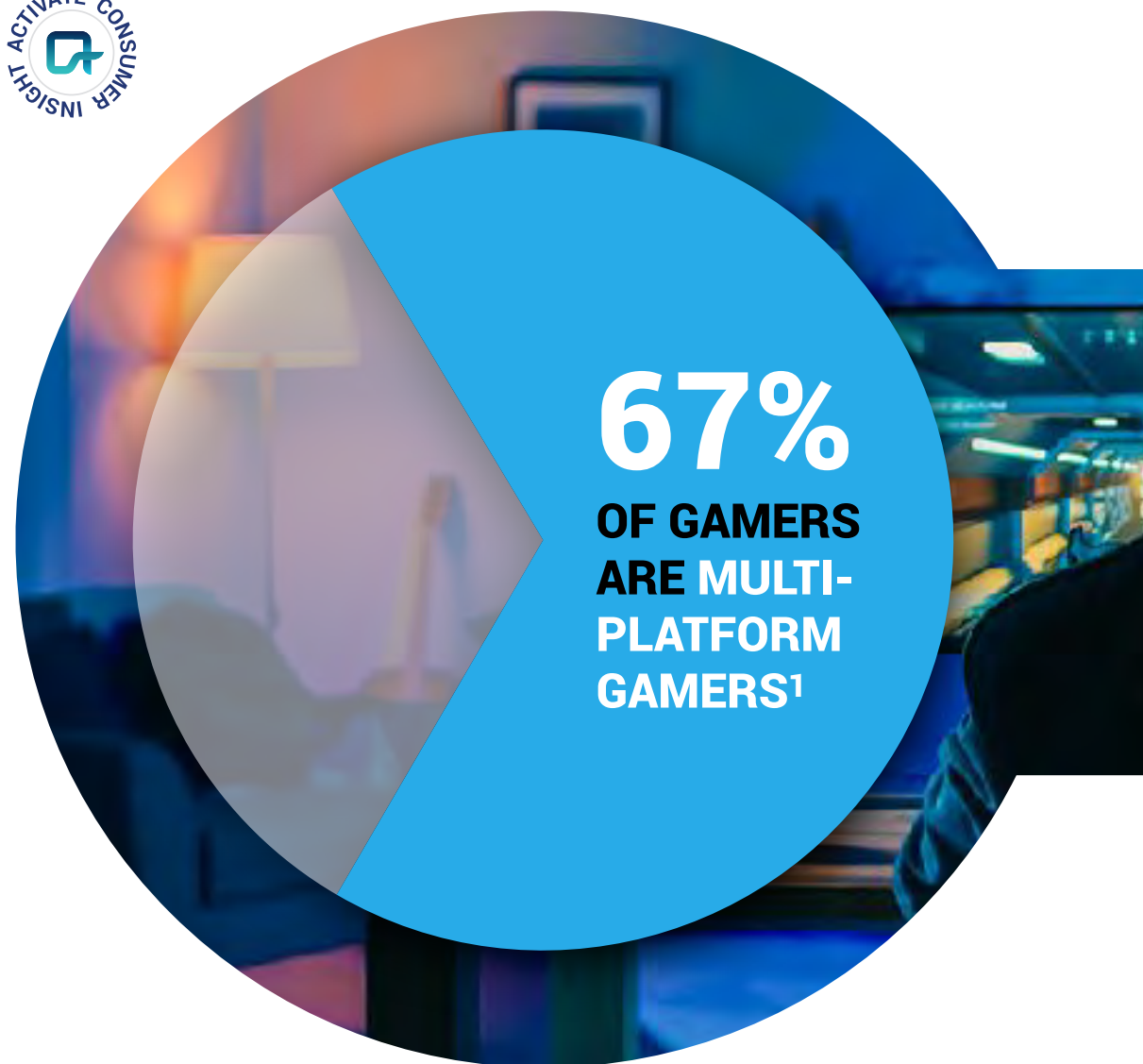
Mobile Gaming² PC Gaming³ Console Gaming⁴



1. "Gamers" are defined as adults aged 18+ who currently play video games. 2. Reflects frequency of adults aged 18+ who spend any time playing video games on smartphones or tablets. 3. Reflects frequency of adults aged 18+ who spend any time playing video games on a desktop/laptop computer. 4. Reflects frequency of adults aged 18+ who spend any time playing video games on a game console. Nintendo Switch is included as a console.
Sources: Activate analysis, Activate 2021 Consumer Technology & Media Research Study (n = 4,018)

Multi-platform gamers spend significantly more time gaming than single-platform gamers

SINGLE PLATFORM VS. MULTI-PLATFORM GAMERS¹, U.S., 2021, % GAMERS²



2019

The average **multi-platform gamer¹** spent

47%

more time gaming
than the average
single-platform gamer

2021

The average **multi-platform gamer¹** spent

51%

more time gaming
than the average
single-platform gamer

Multi-platform franchises dominate

TOP-EARNING PAID PC AND CONSOLE VIDEO GAME TITLES, GLOBAL, 2020, BILLIONS USD



NINTENDO SWITCH



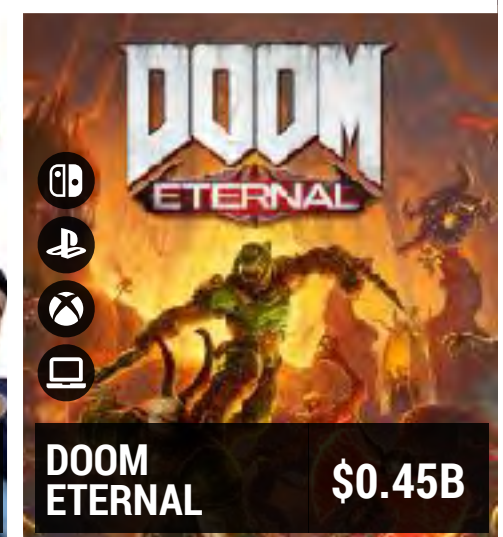
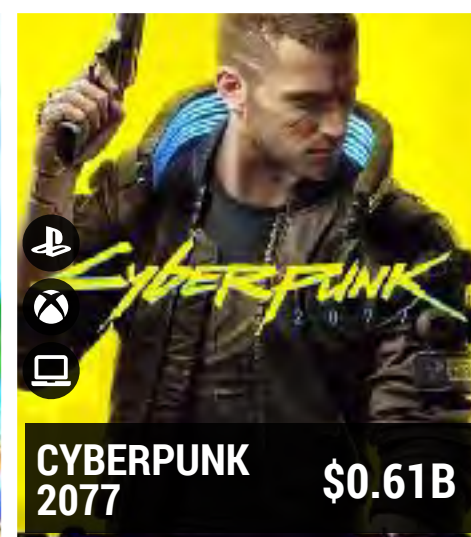
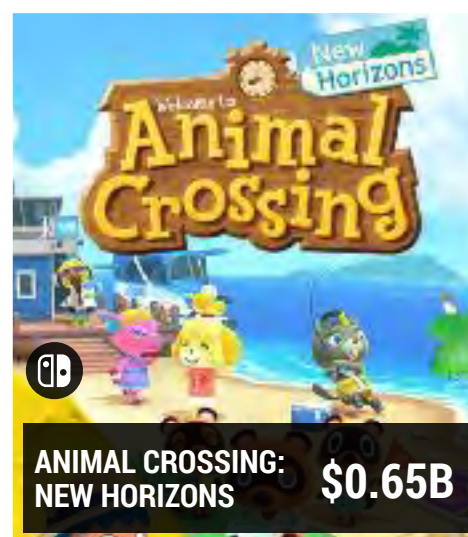
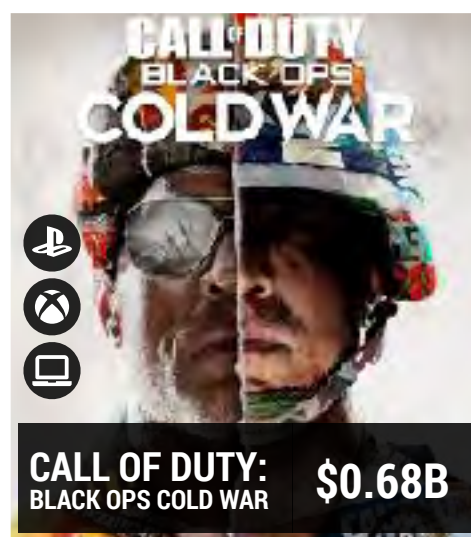
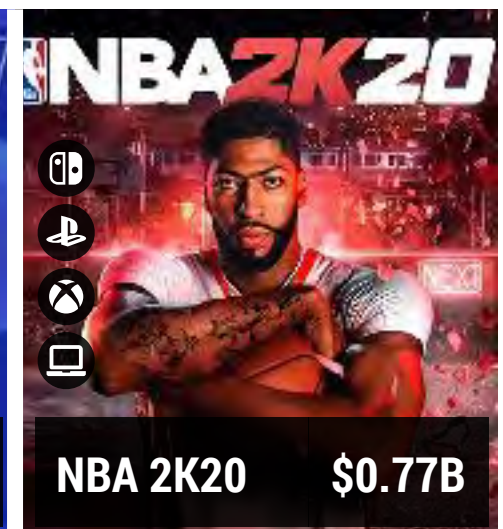
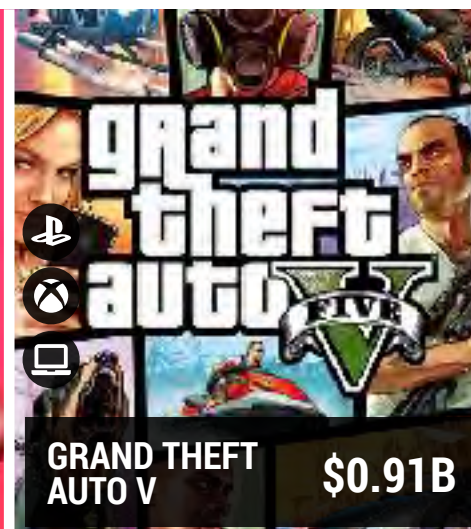
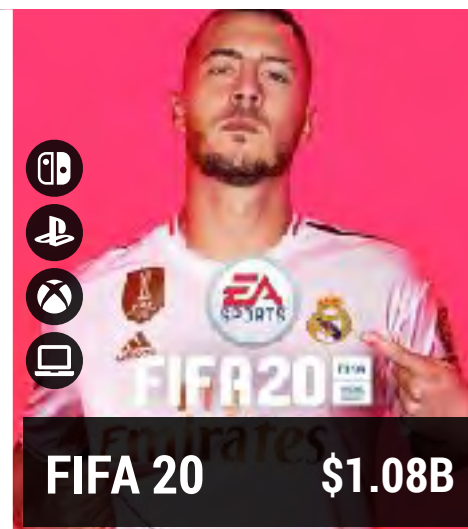
PLAYSTATION



XBOX



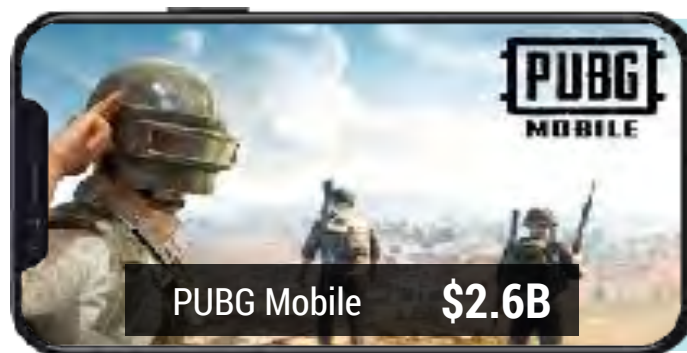
PERSONAL COMPUTER



On mobile, top-earning titles encourage gamers to interact with friends through social features, in-game benefits, and rewards

TOP-EARNING¹ MOBILE² GAME TITLES, GLOBAL, 2020³, BILLIONS USD

TOP MOBILE GAMES OFFER PLAYERS SOCIAL FEATURES TO INTERACT WITH OTHER PLAYERS



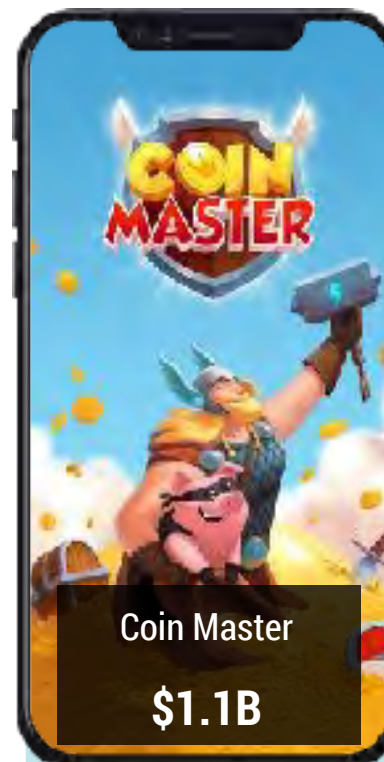
- Ability to share highlights and results via chat
- Ability to invite/compete with players from same region



- Cooperative play with 5 people
- Integrations with social/messaging platforms (e.g. WeChat, QQ)



- Ability to send in-game gifts to others
- Bonuses based on tiered "Friendship Levels"



- Bonuses for linking to social media accounts (e.g. Facebook)
- In-game rewards for inviting friends



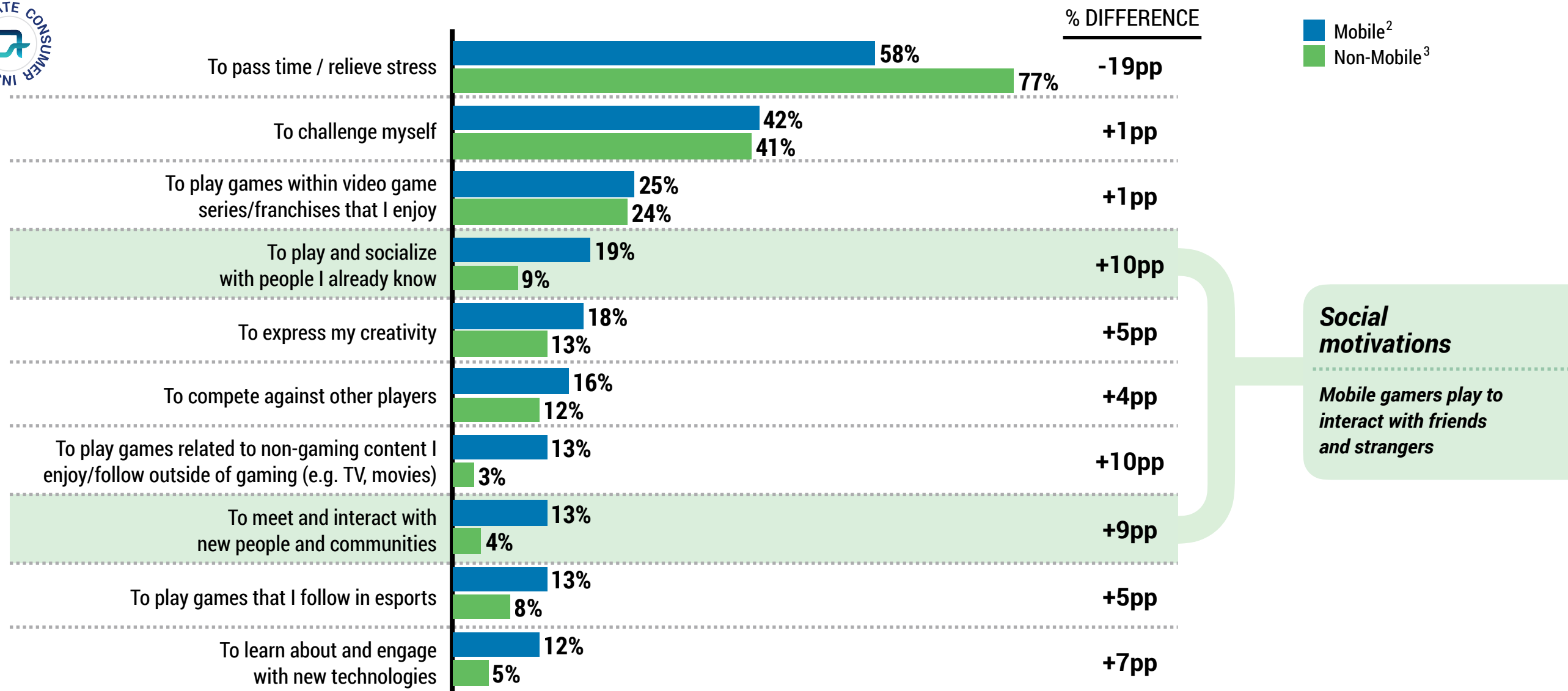
- Ability to invite others to specific servers
- Increasing in-game payouts based on engagement



- Local and online co-op
- Bonuses for playing via social media platforms (e.g. Facebook, WhatsApp)

Mobile gamers seek more diverse experiences and tap into social behaviors when they play

TOP REASONS¹ FOR GAMING BY MOBILE AND NON-MOBILE GAMING PARTICIPATION, U.S., 2021, % MOBILE² VS. NON-MOBILE³ GAMERS

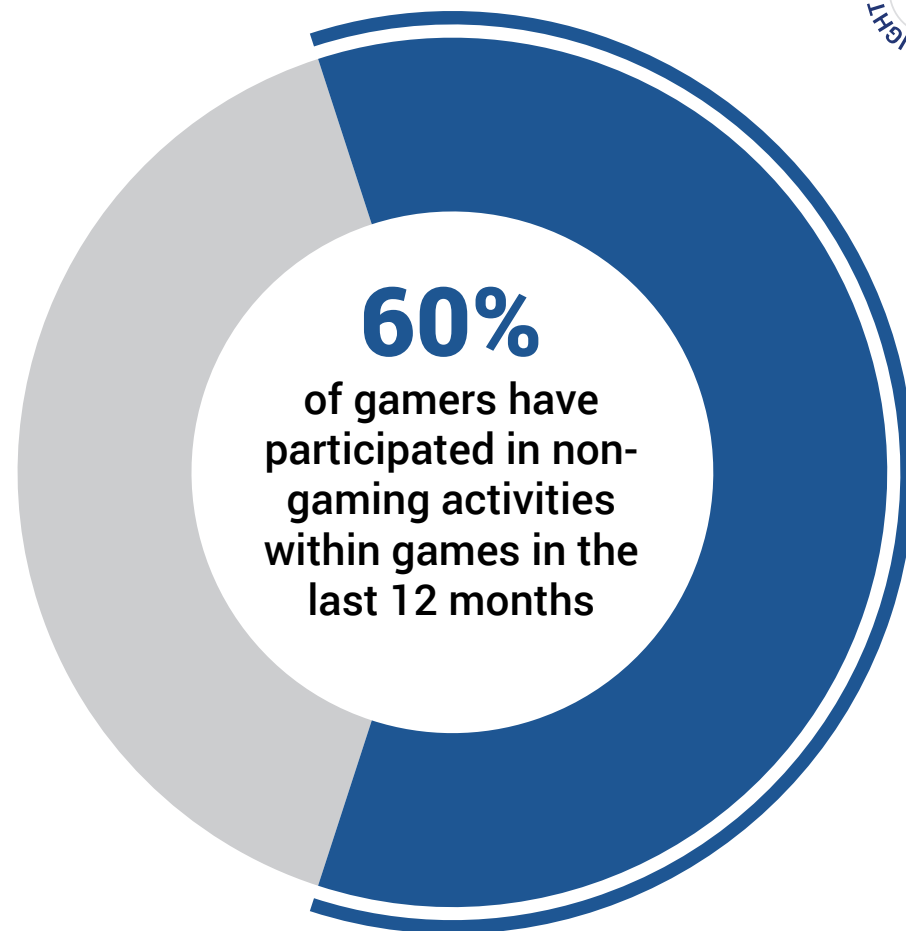


1. Respondents were asked to select up to 3 primary reasons for playing video games. 2. "Mobile gamers" are defined as adults aged 18+ who spend any time playing video games on smartphones or tablets. 3. "Non-mobile gamers" are defined as adults aged 18+ who spend any time playing video games on game consoles and/or desktop/laptop computers, but not on smartphones or tablets.

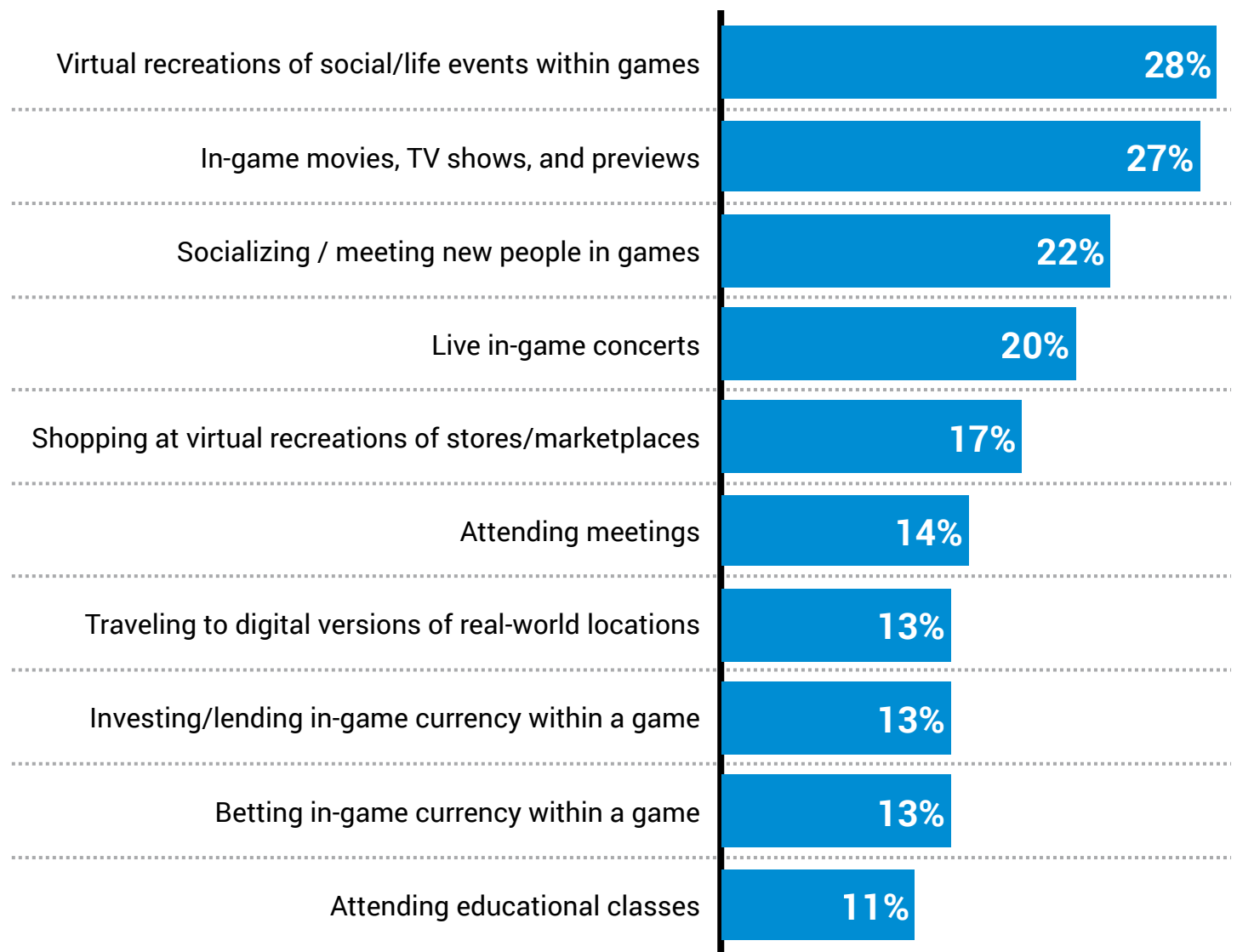
Sources: Activate analysis, Activate 2021 Consumer Technology & Media Research Study (n = 4,018)

The majority of gamers participate in non-gaming activities within games – highlighting the criticality of games in the metaverse

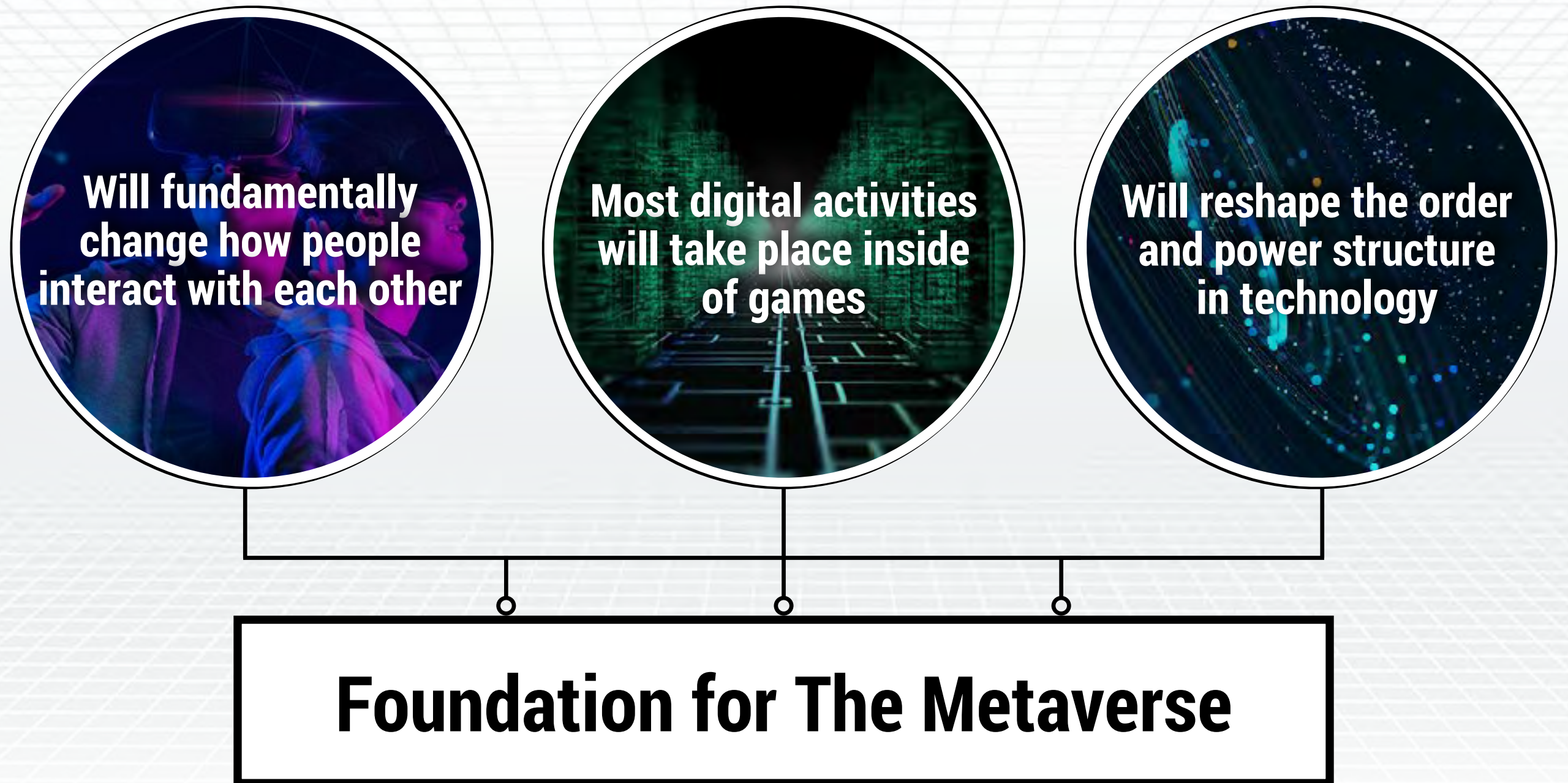
PARTICIPATION IN NON-GAMING ACTIVITIES OR EVENTS WITHIN VIDEO GAMES IN THE LAST 12 MONTHS¹, U.S., 2021, % GAMERS²



PARTICIPATION IN NON-GAMING ACTIVITIES OR EVENTS WITHIN VIDEO GAMES IN THE LAST 12 MONTHS¹, U.S., 2021, % GAMERS²











Gaming is the new technology paradigm























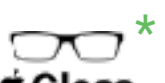

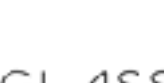









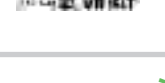







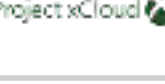
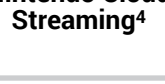


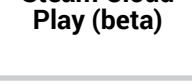

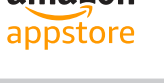


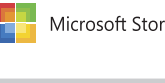










Given the overwhelming importance of video gaming to the future of technology, the major technology companies are building out their capabilities across the full gaming stack

ELEMENTS NEEDED FOR A COMPREHENSIVE GAMING STACK

STACK ELEMENT	DEFINITION
 GAME PUBLISHER	Capabilities to develop in-house gaming titles (e.g. Amazon Games, Valve)
 VIRTUAL WORLD	Tools and infrastructure to create virtual spaces (e.g. Minecraft, Facebook Horizon)
 CONSOLE	Hardware to operate and display video games (e.g. Xbox, PlayStation)
 AR/VR DEVICE	Hardware to display digital content in AR/VR (e.g. Oculus, PlayStation VR)
 CLOUD	Infrastructure and services to stream video game content over an internet connection (as opposed to local hardware) (e.g. Google Stadia, Amazon Luna)
 APP STORE	Marketplaces to purchase gaming titles and content (e.g. Steam, Apple App Store)
 SUBSCRIPTION SERVICE	Subscriptions to allow access to gaming titles, content, and/or additional features (e.g. Xbox Game Pass, PlayStation Plus)
 GAMING AS VIDEO	Platforms to host and serve gaming media (e.g. Twitch, YouTube)

Each of the technology companies will either acquire or build their way to become full-stack gaming players

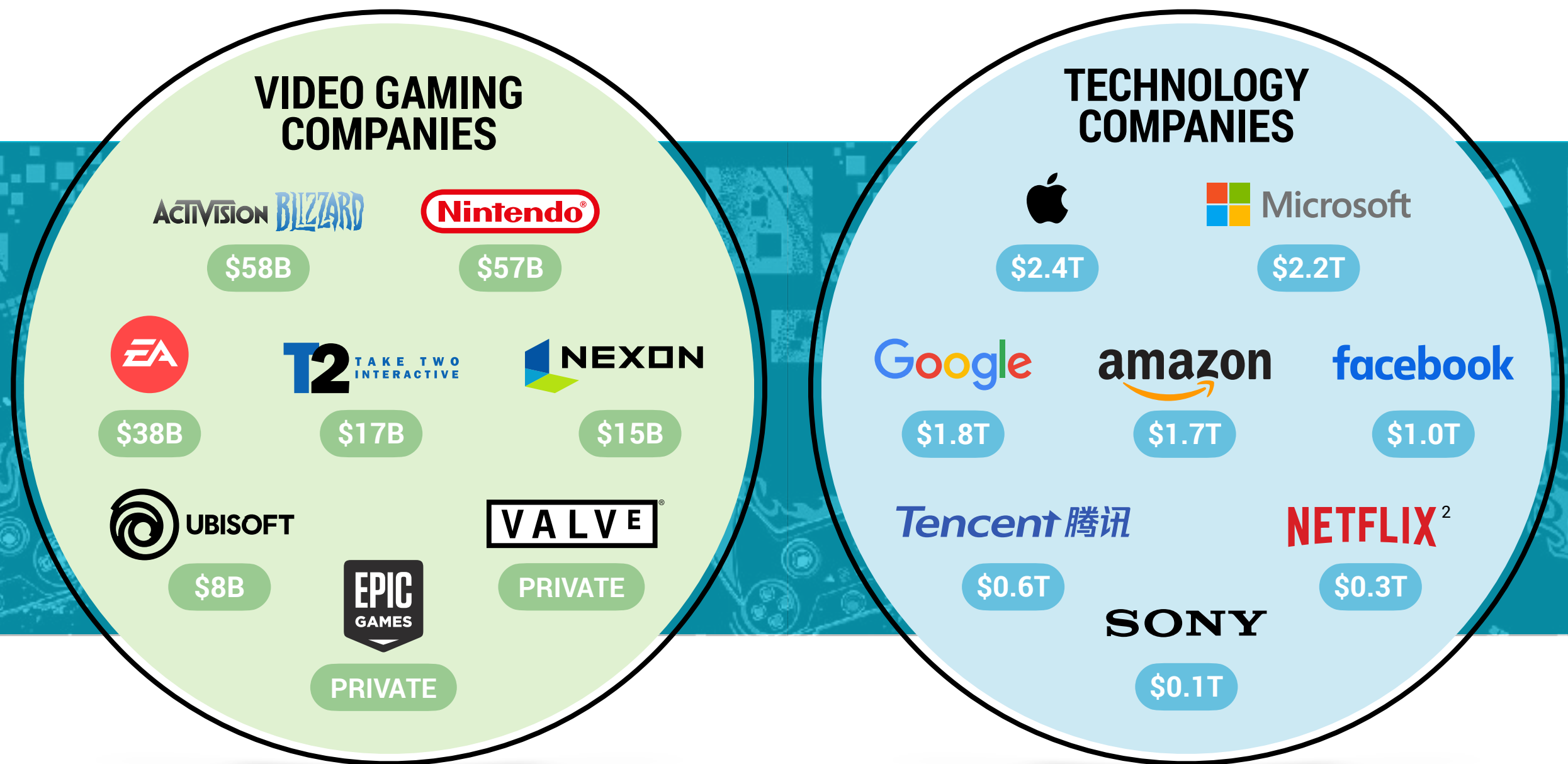
SELECT COMPANIES' PRESENCE IN GAMING¹

 New Since October 2020	amazon	Apple	facebook	Google	Microsoft	NETFLIX	Nintendo	SONY	Tencent	VALVE
 GAME PUBLISHER	games									
 VIRTUAL WORLD										
 CONSOLE ⁷										
 AR/VR DEVICE										
 CLOUD										
 APP STORE										
 SUBSCRIPTION SERVICE										
 GAMING AS VIDEO										

1. Information as of Oct. 6, 2021. Does not include areas in which the company is a majority stakeholder. 2. Facebook does not offer a standalone cloud service but allows streaming of select games through Facebook on Android and web. 3. Only available through a bundle with Xbox Game Pass Ultimate. 4. On a game-by-game basis, not as a subscription or service. 5. Engine created by Valve and game eventually published by Valve, but independently developed by Garry Newman and Facepunch Studios. 6. Expected to be released in Dec. 2021. 7. Excludes devices with a primary purpose other than gaming (e.g. Apple TV). Sources: Activate analysis, Company sites

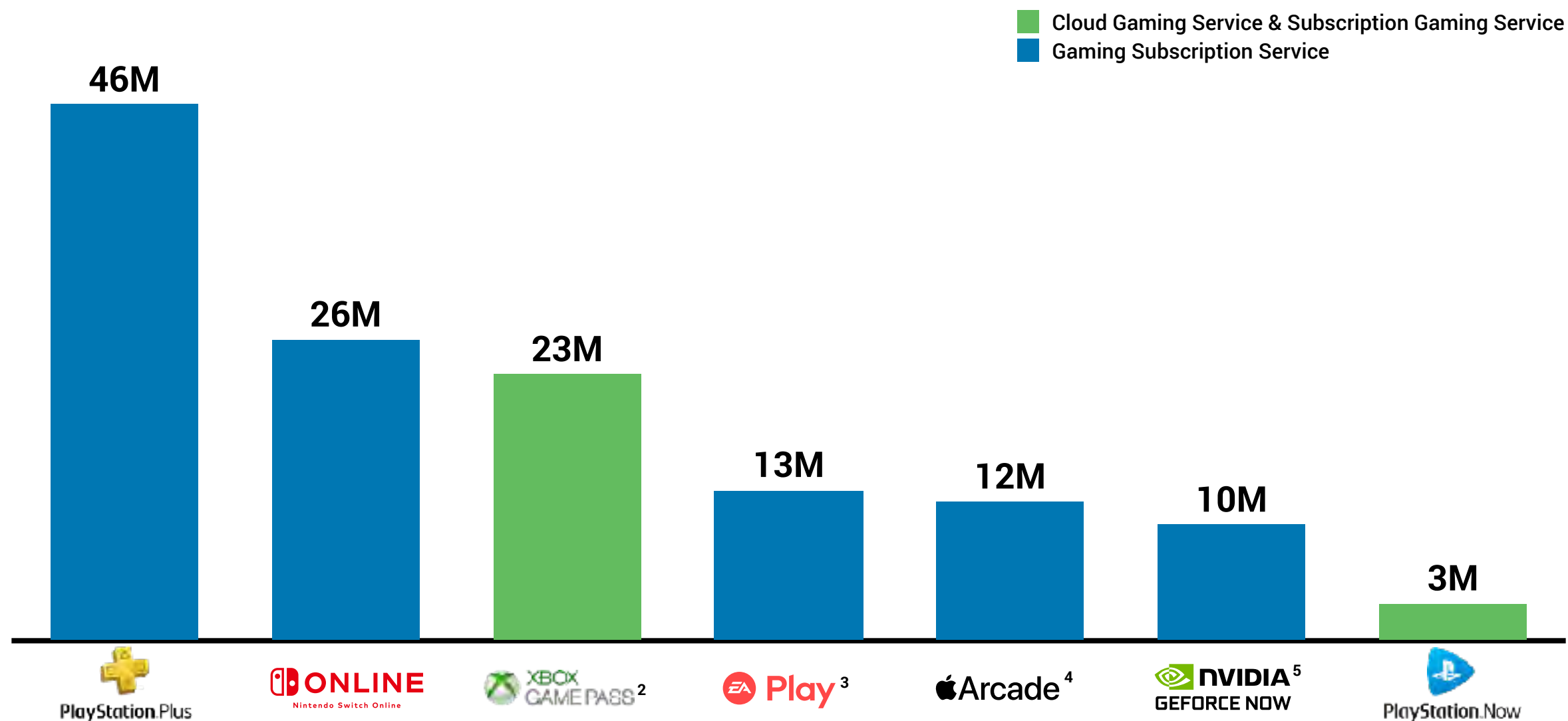
We expect technology giants to pursue acquisitions of today's top gaming companies, as they broaden their capabilities across the gaming stack

MARKET CAPS OF VIDEO GAME COMPANIES AND TECHNOLOGY COMPANIES¹, GLOBAL, 2021, USD



There is substantial demand for gaming subscriptions and cloud gaming services

USAGE OF SELECT CLOUD GAMING SERVICES AND GAMING SUBSCRIPTION SERVICES¹, GLOBAL, 2021, MILLIONS SUBSCRIBERS



1. Gaming subscription services and cloud gaming services are not mutually exclusive. "Gaming subscription service" is defined as a gaming service with a subscription pricing plan (e.g. monthly subscription for access to a game library, online multiplayer mode). "Cloud gaming service" is defined as a gaming service that allows users to play video games by streaming from another device (e.g. a server through the cloud). 2. Ultimate Bundle includes cloud gaming functionality as of Oct. 18, 2021. 3. Across all formats (e.g. PC, Console). 4. Estimate. 5. Indicative of members across paid and free tiers.
Sources: Activate analysis, Company press releases, IHS Markit

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Data Solutions and Enterprise Automation: Technology Advances Create Breakthrough Capabilities	188

Conversation and news about the metaverse have reached a fever pitch in the last 12 months

METaverse HEADLINES: 2020 AND 2021

THE WALL STREET JOURNAL.

Facebook, Roblox See the 'Metaverse' as Key to the Internet's Next Phase

Social-media giant's Horizon Workrooms app reflects interest to invest in technology and content development for new range of online social experiences

TE TechCrunch

Zuckerberg is turning trillion-dollar Facebook into a 'metaverse' company, he tells investors

The Washington Post

Epic Games believes the Internet is broken. This is their blueprint to fix it.

Epic CEO Tim Sweeney and other executives detail their plan for the metaverse and how it differs from Facebook's vision

WIRED

The Metaverse is coming

A 3D virtual world where millions meet online will become our key social hub

THE WALL STREET JOURNAL.

THE FUTURE OF EVERYTHING

THE AMAZING THINGS YOU'LL DO IN THE 'METAVERSE' AND WHAT IT WILL TAKE TO GET THERE

Tech visionaries foresee a vast, immersive world that will reshape and extend the real one, allowing people to do what previously could only be imagined

VOGUE BUSINESS

Is it time to hire a chief metaverse officer?

The Metaverse Is Here. Is Your Company Ready?

What it is, and why every company needs to care.

The Washington Post

How Facebook's 'metaverse' became a political strategy in Washington

With a buzzy push for next-wave virtual reality hardware, the tech giant is trying to outrun its mounting woes.

The Washington Post

Big Tech wants to build the 'metaverse.' What on Earth does that mean?

Microsoft, Facebook and other tech companies claim a virtual reality universe is the future of the Internet.

THE NEW YORK TIMES STYLE MAGAZINE

Are We in the Metaverse Yet?

Crypto people say they're building it. Gamers might already be living in it. The art world is cashing in on it. Web veterans are trying to save it. But what is it?

Forbes

The Metaverse Is Coming And It's A Very Big Deal

THE VERGE

WHAT IS THE METAVERSE

However, the conversation about the potential of the metaverse in technology and media has been taking place for many years, going back over 15 years

METaverse HEADLINES: 2006-2008



IBM, Linden Lab Envision Borderless Metaverse

BBC NEWS

Virtual worlds with real purposes

BBC NEWS

The ever-expanding metaverse



Google moves into virtual worlds

By combining satellite maps and 3-D software, Google Earth is turning into a virtual online playground.

MIT Technology Review

Second Earth

The World Wide Web will soon be absorbed into the World Wide Sim: an environment combining elements of Second Life, Google Earth.

GIGAOM

Here Comes the Open Source Metaverse

WIRED

Bank Failure in Second Life Leads to Calls for Regulation

When Second Life-based Bank Financial collapsed earlier this month, investors lost the equivalent of \$700,000 in US currency. The bank failure is leading some to call for more regulation in the virtual world.

The New York Times

TECHNOLOGY

Exploring the Vast Business Potential of the Metaverse

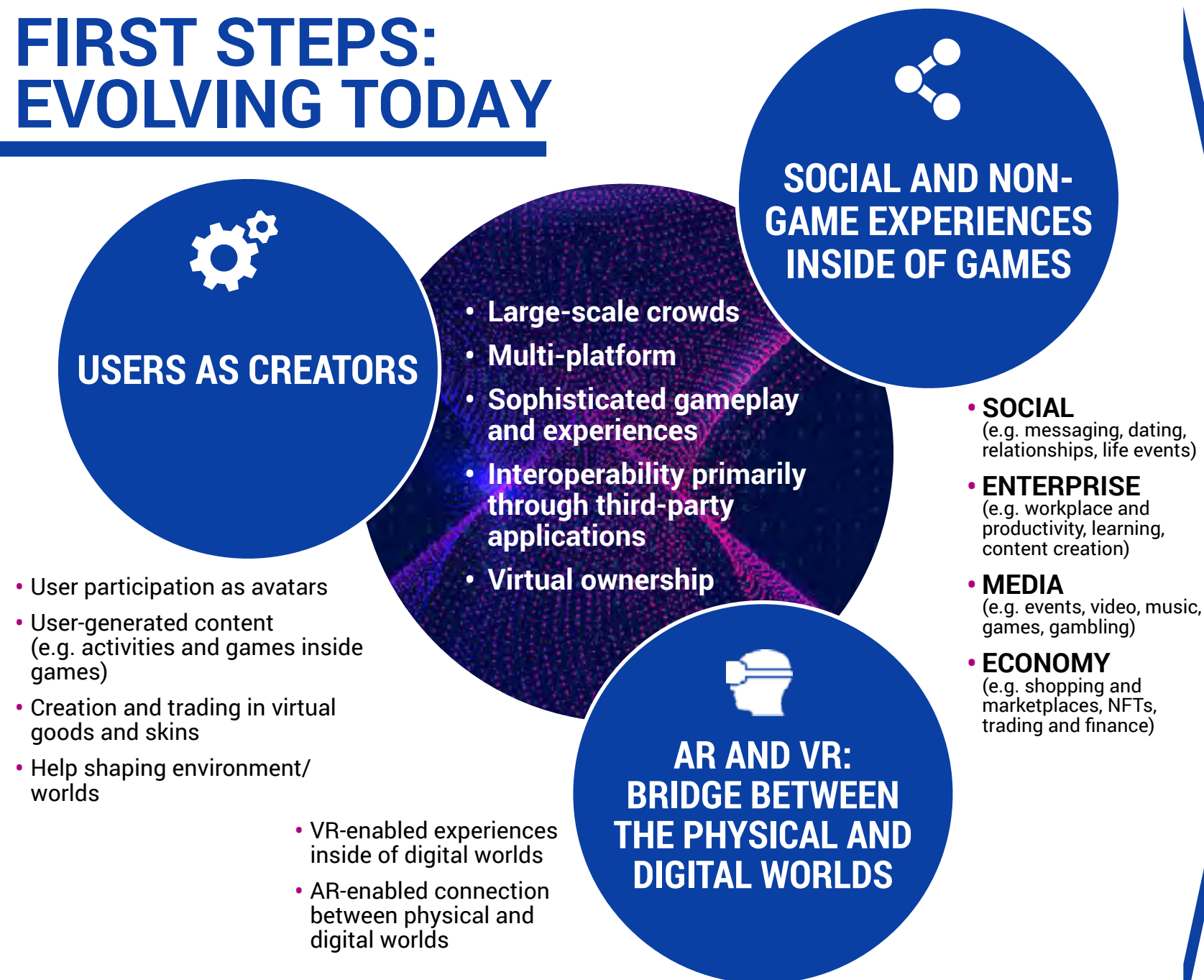
WIRED

When Virtual Worlds Collide

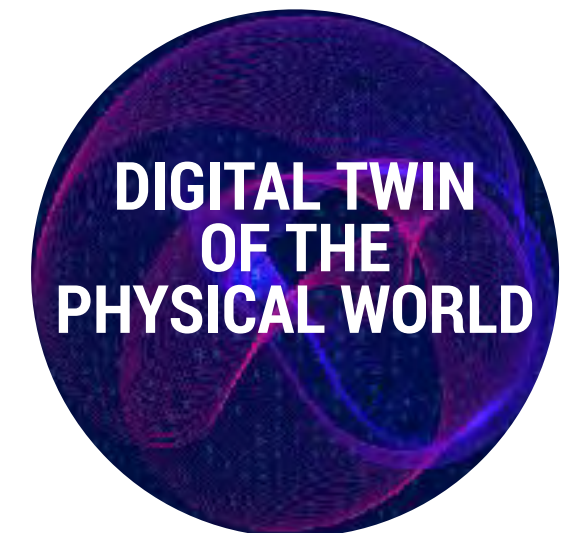
Grand Theft Auto crashes through EverQuest into The Sims. The walls dividing the game universe are coming down.

Many of the foundational elements for the metaverse are already here

FIRST STEPS: EVOLVING TODAY



VISION OF THE FUTURE



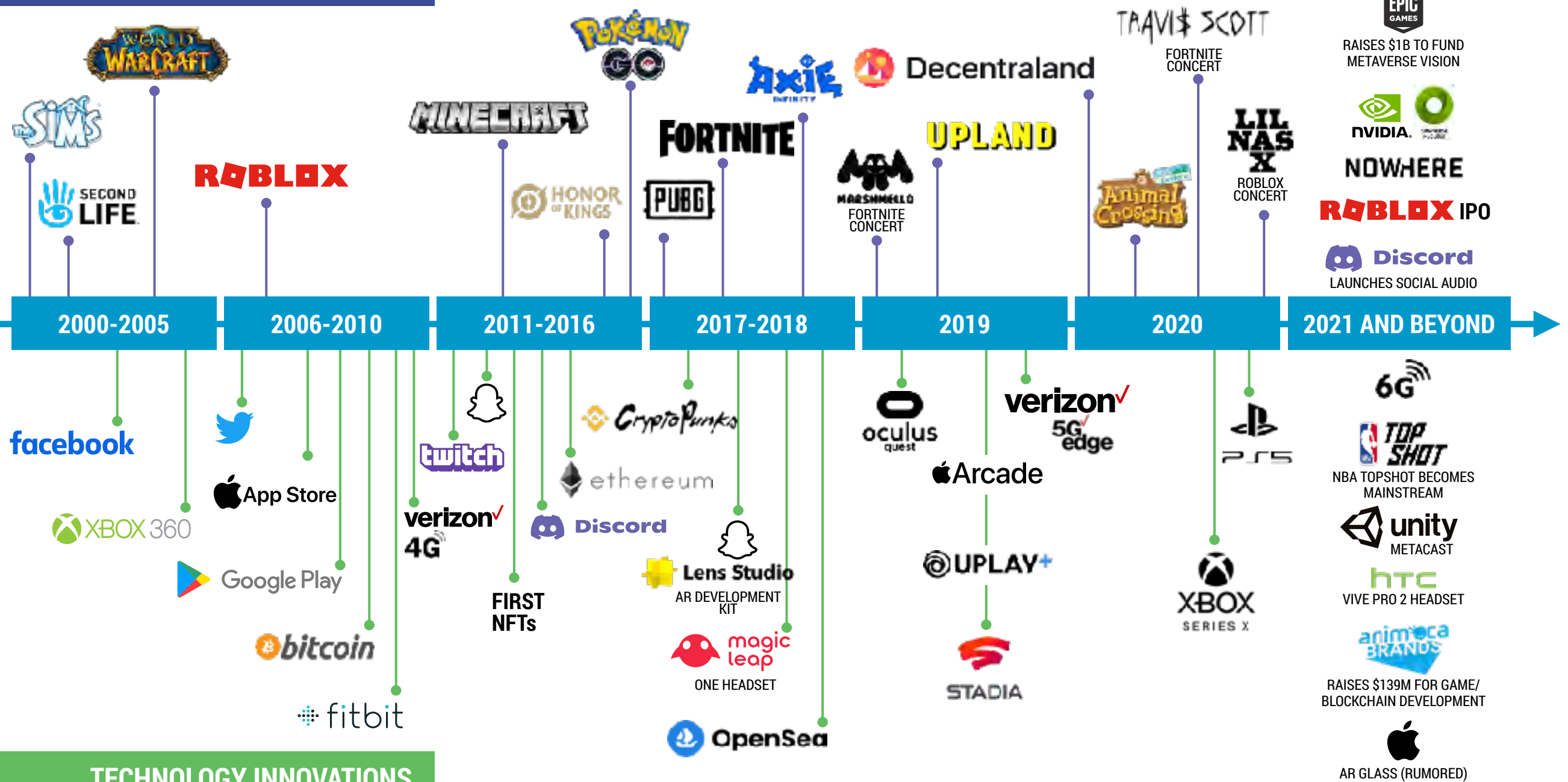
- Fully interconnected spaces
- Persistent identity/avatar
- Interoperability across platforms
- Sophisticated social mechanics
- Digital ownership and virtual possessions
- Extensive economies

Our point of view on the metaverse

- **Pursuit of the metaverse will drive companies to make extensive technology and experience investments**
- **Gaming is the most viable path towards the metaverse** and is increasingly the next technology paradigm for all digital activities
- **“Metaverse activities” beyond gaming are already taking place inside of games**, including social interactions, avatars, media, economies, and messaging
- **VR enables user involvement inside of metaverse experiences; AR bridges the gap between physical and digital worlds**
- **“Interoperability” will be a significant challenge** and will not be resolved any time soon; **third-party applications** (e.g. messaging, payments, audio) **will provide functionality and experiences across metaverse platforms**
- **There will not be one metaverse platform**
- **No one company will own the metaverse**

Development of technologies, experiences, and activities leading to the metaverse have been underway for the last 20 years

METaverse EVENTS/PLATFORMS

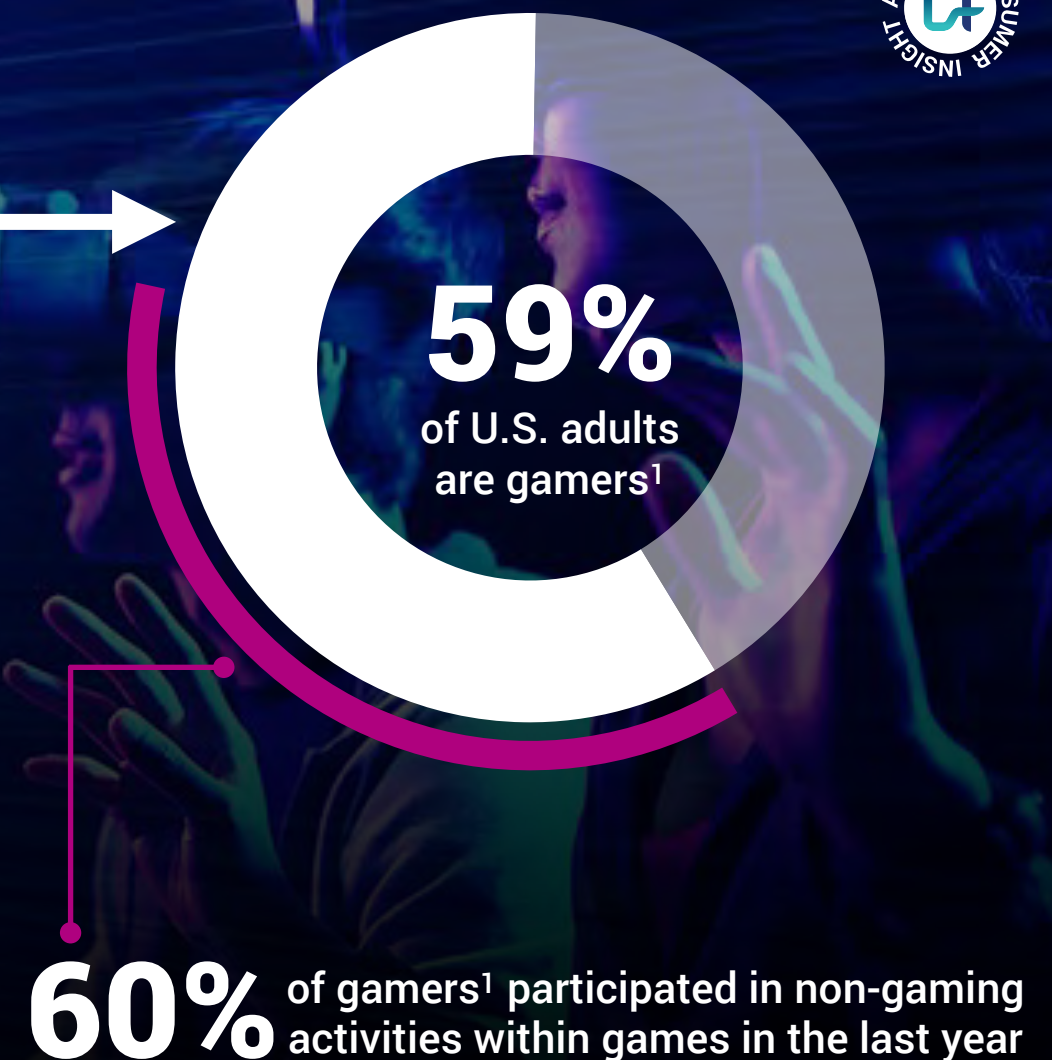


Games are the starting point and most viable path towards the metaverse

GAMES ARE THE FOUNDATION TO AN EXPANSIVE DIGITAL WORLD

- **Many games already at scale** (e.g. massive, engaged user bases)
- **Games already providing experiences for consumers to participate in several behaviors indicative of a metaverse** (e.g. sense of presence, digital goods ownership, live events, personalization)
- **Existing elements of user-created content** (e.g. user-generated activities, games, virtual goods, environments/worlds)
- **Ability to create new user behaviors through attachment to game IP** (e.g. established titles serve as a familiar hook for users to try new virtual experiences within these games)
- **Technology requirements to build a metaverse already being developed through capabilities of existing leaders in gaming** (e.g. game mechanics, concurrency, AR/VR integration, security, content moderation)

VIDEO GAMES ARE A MAINSTREAM CONSUMER BEHAVIOR



We have already begun to see extensive participation in metaverse activities inside of games

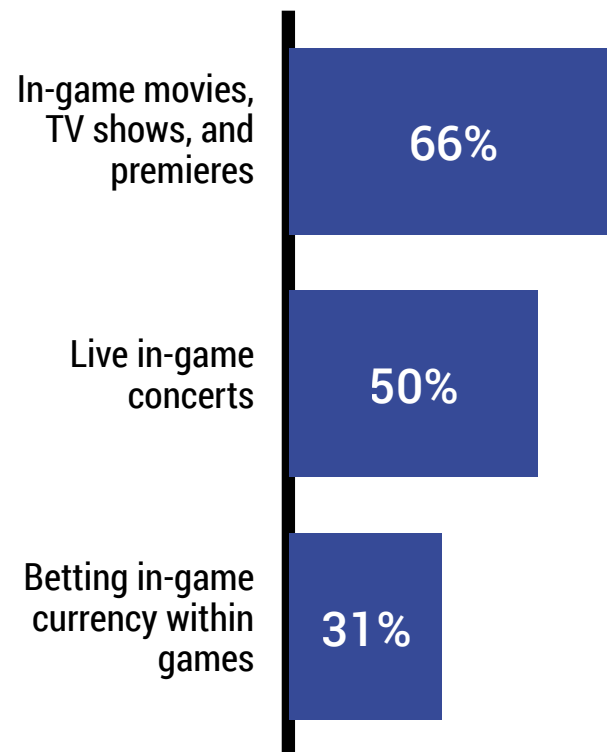
PARTICIPATION IN METaverse ACTIVITIES WITHIN VIDEO GAMES, U.S., 2021, % METaverse PARTICIPANTS¹



65% MEDIA EXPERIENCE

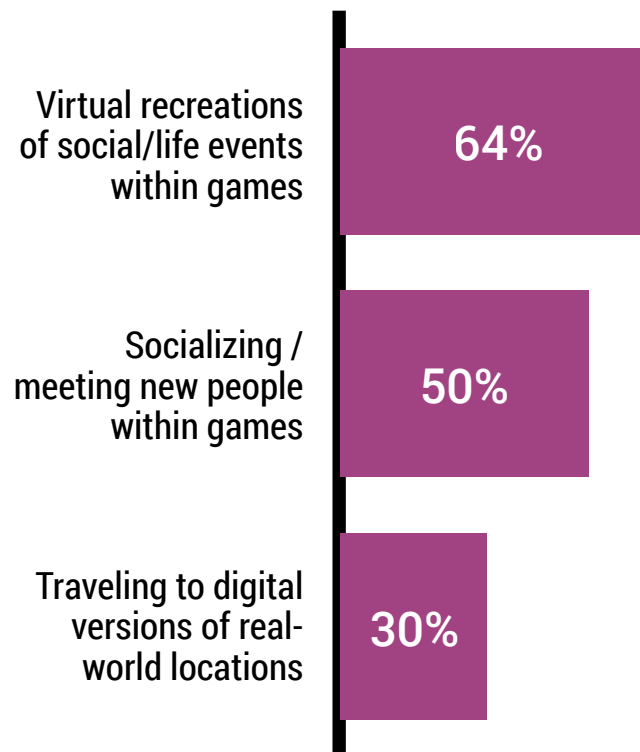


Of those who have participated in a media experience...



69% SOCIAL ACTIVITY

Of those who have participated in a social activity...

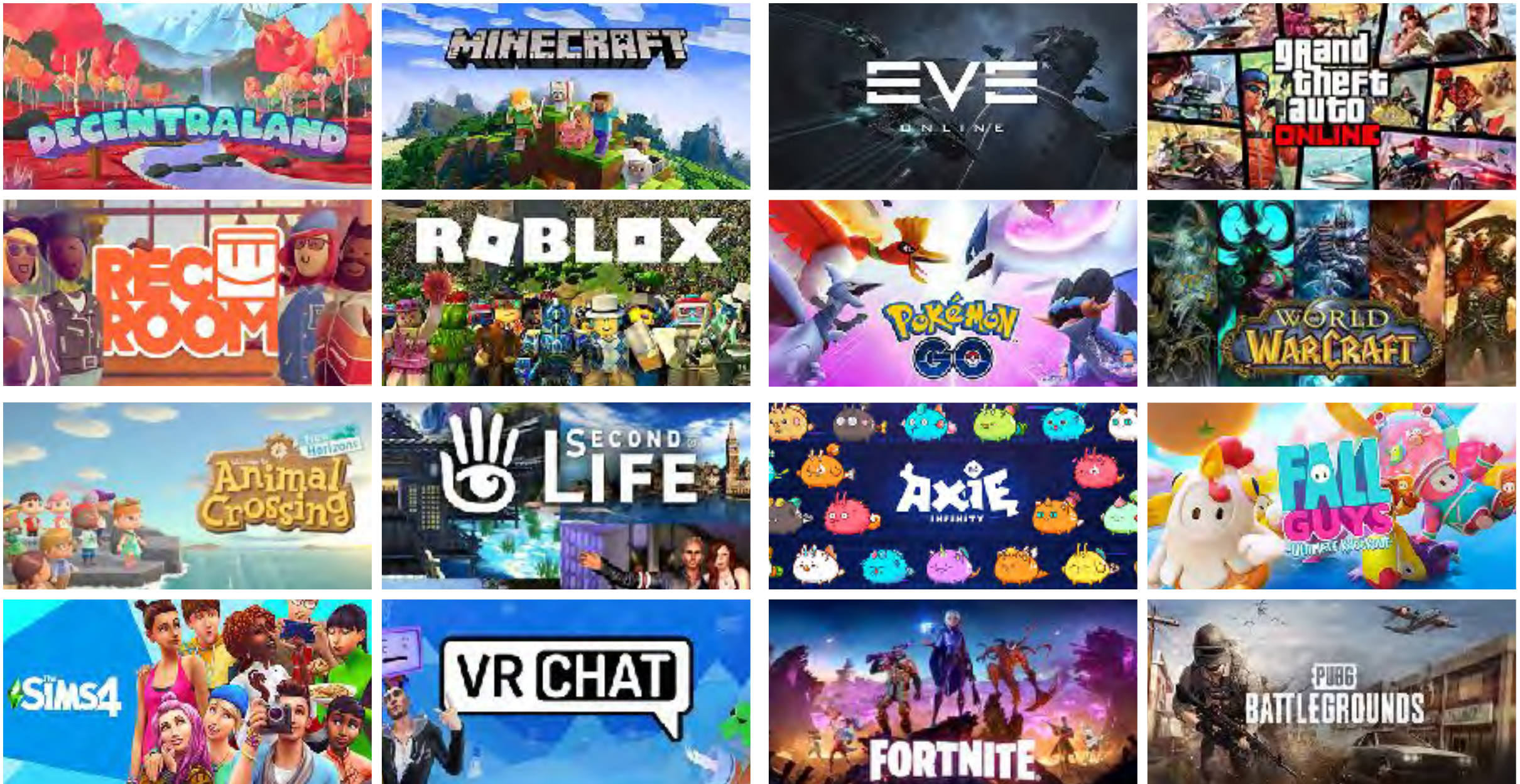


72% ECONOMIC ACTIVITY

Of those who have participated in an economic activity...



Major video game titles are morphing into metaverse platforms and are beginning to show us what it is like to be in the metaverse



We expect to see an expansive set of metaverse activities; eventually all digital behavior and many daily activities will take place on metaverse platforms

SOCIAL

ENTERPRISE

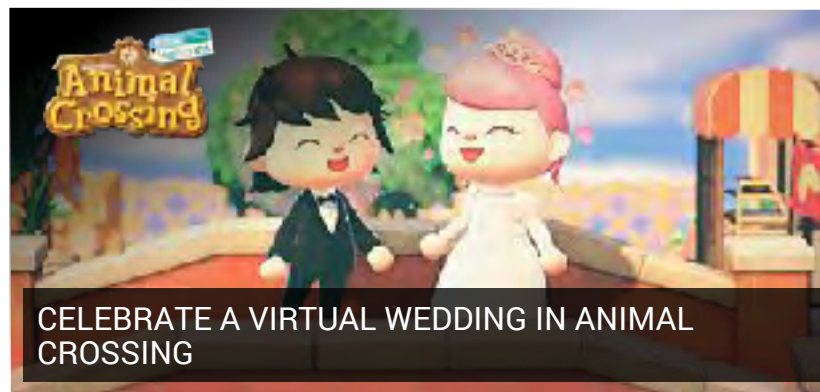
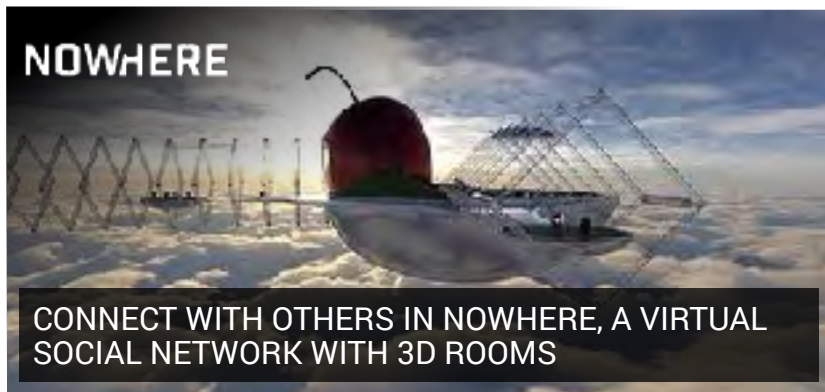
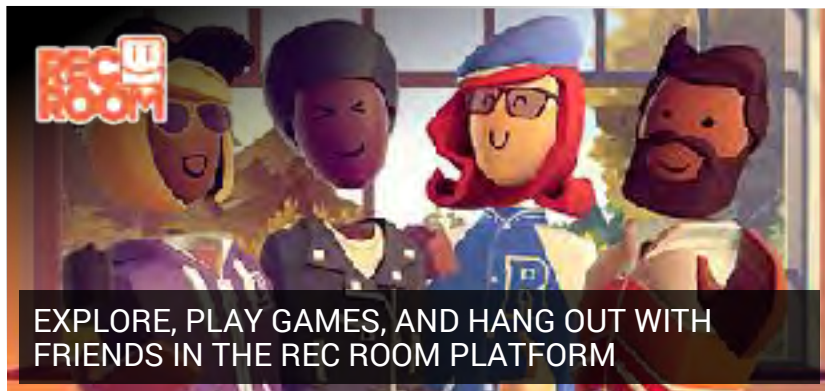
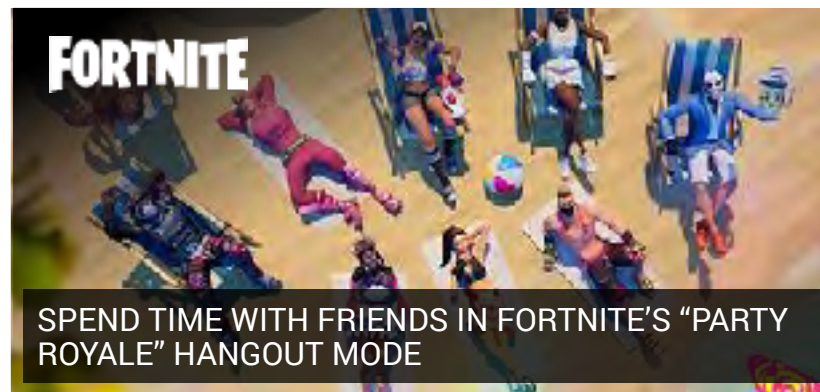
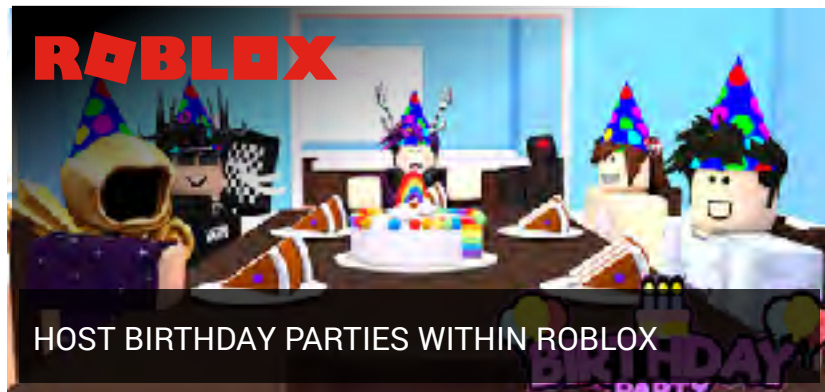


ECONOMIES

MEDIA EXPERIENCES

Social experiences, communications, and functionality will increasingly take place in metaverse platforms

EARLY STAGES OF METAVERSE SOCIAL INTERACTIONS



ACTIVATE PERSPECTIVE

Social experiences and functionality will take place in the virtual world

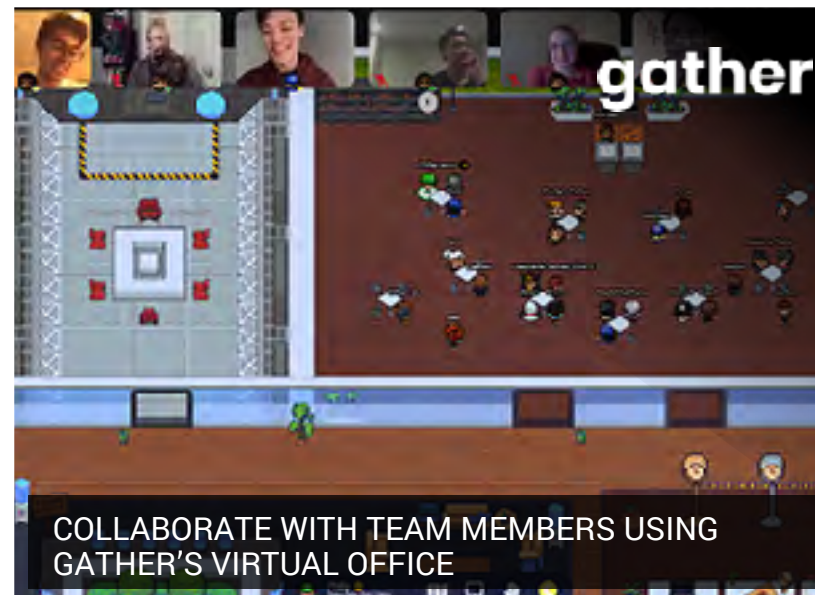
- Messaging/communication
- Spending time with friends
- Making new connections based on shared interests
- Dating / forming relationships
- Celebrating life events (e.g. weddings, births)
- Playing games
- Hosting parties

Future of metaverse social experiences:

- Spontaneous social interactions
- Ambient communication
- Extensive simulated presence

Enterprise Metaverse: Most enterprise metaverse applications will build on those developed in consumer

EARLY STAGES OF METAVERSE ENTERPRISE APPLICATIONS



ACTIVATE PERSPECTIVE

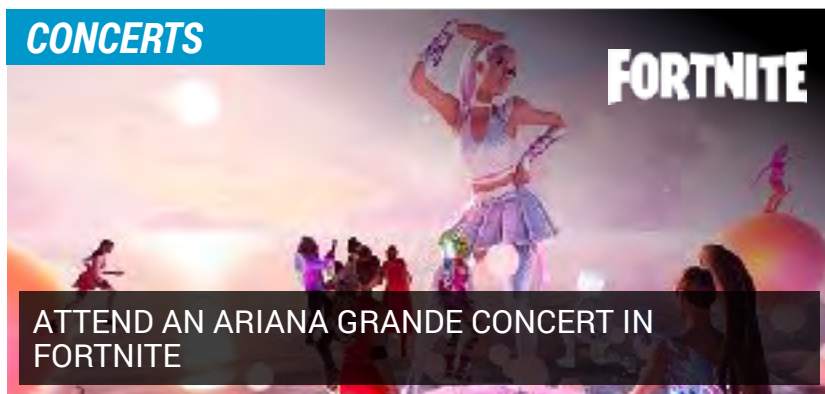
Enterprise metaverse will evolve to include:

- Workflow and productivity tools
- Real-time collaboration
- Meetings
- Intuitive interfaces
- Learning/training

Media Experiences: Early media experiences show the potential of shared virtual events and entertainment

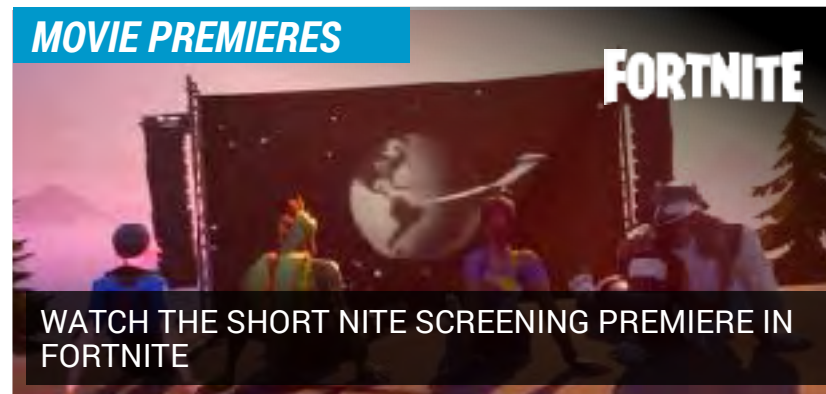
EARLY STAGES OF METAVERSE MEDIA EXPERIENCES

CONCERTS



ATTEND AN ARIANA GRANDE CONCERT IN FORTNITE

MOVIE PREMIERES



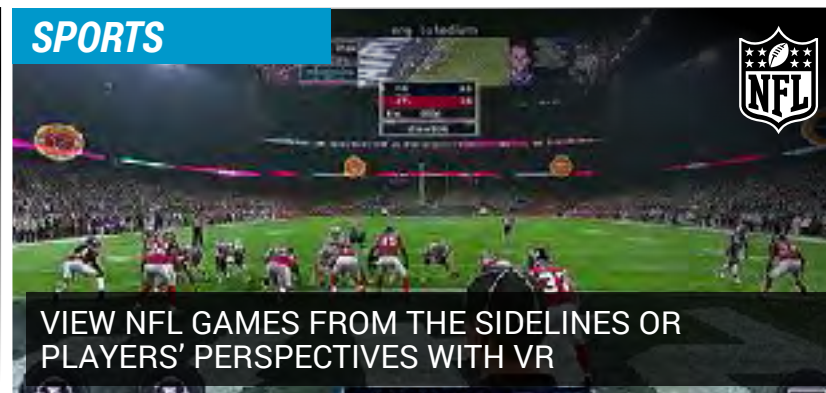
WATCH THE SHORT NITE SCREENING PREMIERE IN FORTNITE

EXHIBITS



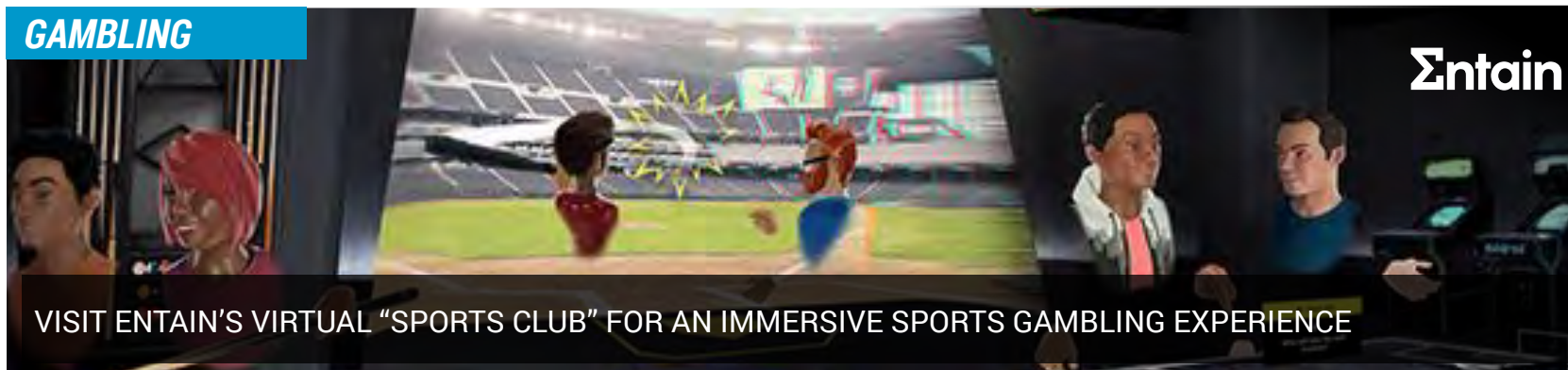
EXPLORE VIRTUAL EXHIBITS FROM THE NATIONAL MUSEUM OF NATURAL HISTORY

SPORTS



VIEW NFL GAMES FROM THE SIDELINES OR PLAYERS' PERSPECTIVES WITH VR

GAMBLING



VISIT ENTAIN'S VIRTUAL "SPORTS CLUB" FOR AN IMMERSIVE SPORTS GAMBLING EXPERIENCE

ACTIVATE PERSPECTIVE

There will be seamless, real-time connection between physical and digital experiences/events (e.g. in-person concert with a "digital twin event" in the virtual world)

Future metaverse media experiences:

- Simultaneous participation in fully immersive events
- Ability to interact with other event-goers and share the experience with friends

Economies: Metaverse economies will be enabled by a robust set of marketplaces where traditional retailers as well as digital-native brands can transact both virtual and physical goods/services

EARLY STAGES OF METAVERSE ECONOMIES

DIGITAL GOODS & SERVICES



PURCHASE VIRTUAL FASHION BY DRESSX

DIGITAL GOODS & SERVICES



ACQUIRE DIGITAL FURNITURE NFTS BY ANDRÉS REISINGER

ECOMMERCE: VIRTUAL SHOPPING EXPERIENCE FOR PHYSICAL GOODS



BROWSE AND SHOP AT THE VIRTUAL BURBERRY STORE IN COLLABORATION WITH ELLE DIGITAL JAPAN

DIGITAL TWINS OF PHYSICAL GOODS



REDEEM A VIRTUAL ROBLOX VERSION OF A REAL-LIFE NERF TOY GUN PURCHASE

DIGITAL TWINS OF PHYSICAL GOODS



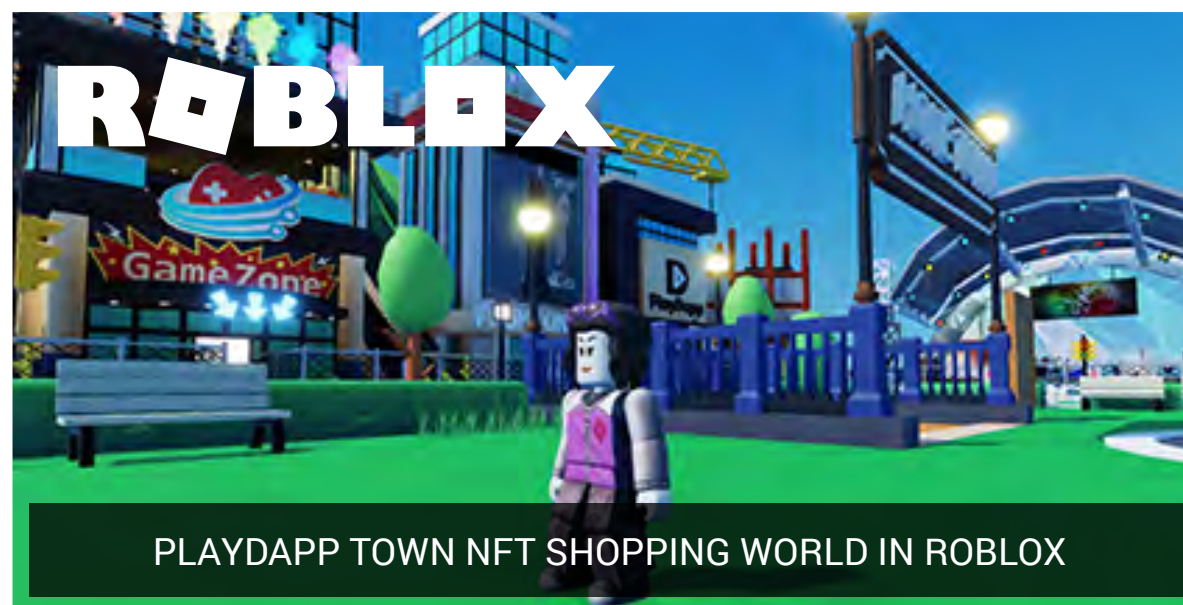
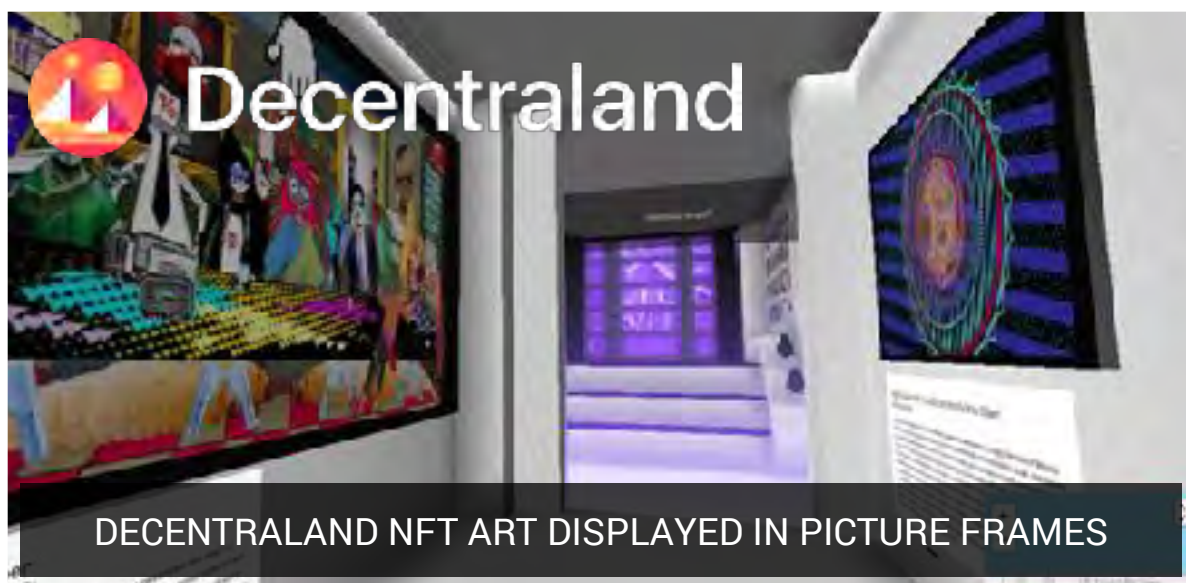
OBTAIN BOTH A DIGITAL AND PHYSICAL VERSIONS OF THE ITEM FOR SALE WITH THE BOSON PROTOCOL AND CRUCIBLE SHOWCASE

ACTIVATE PERSPECTIVE

- **Building blocks of the metaverse economy:**
 - **Digital Goods/Services** (e.g. skins for avatars, virtual fashion, visiting a virtual barber shop)
 - **eCommerce** (e.g. shopping for physical goods in a virtual environment)
 - **Advertising and Sponsorship**
 - **Real Estate and Property Ownership**
- **Users will create and engage with content/experiences that further sustain this economy**
- **NFTs will play a critical role in metaverse economies as a means of authenticating ownership of digital goods**
- **The future of shopping in the metaverse:**
 - Purchases in the physical world (e.g. a designer handbag) will come with a digital twin for your virtual avatar to wear, and purchases in the digital world will result in a tangible item delivered in the physical world

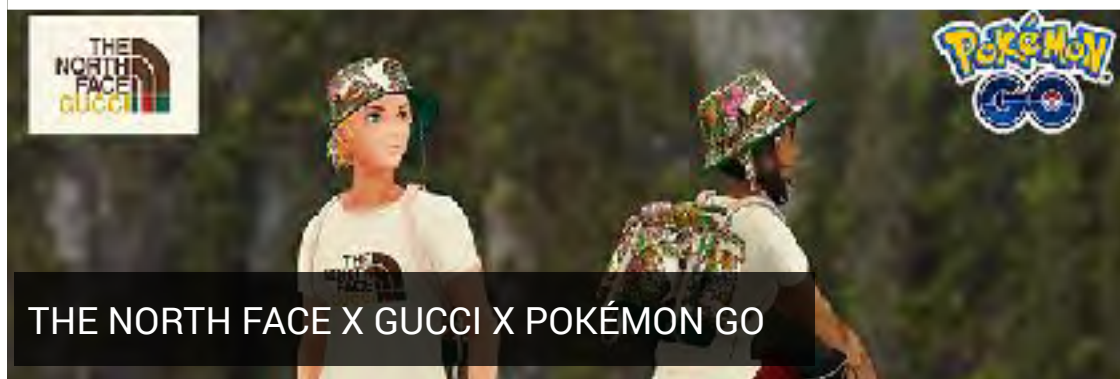
Economies: NFTs will play a critical role in metaverse economies as a means of authenticating ownership of digital goods

NFT IN VIRTUAL WORLDS



Economies: early brand participation, through collaborations and sponsorships, demonstrates the potential of the metaverse to build awareness, engage users, and drive purchases

BRAND COLLABORATIONS

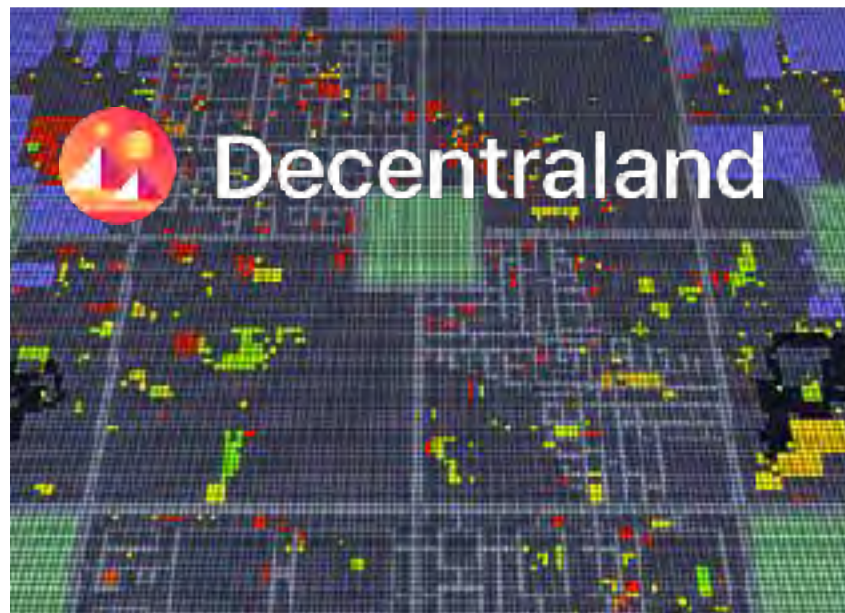


ADVERTISING



Economies: The digital real estate market and ownership of virtual spaces will expand the metaverse economy – real estate ownership in games is already taking shape

EARLY EXAMPLES OF DIGITAL REAL ESTATE MARKETS



\$900K USD: Cost of the most expensive single plot of virtual land, sold in Decentraland



\$8.6M USD: Total cost of virtual land sold in Sandbox from April 2021 to June 2021



1M: Number of unique virtual properties sold in Upland's digital real estate market

- Digital spaces can be **bought, inhabited, built upon, enjoyed, and sold by their owners**
- The buying and selling of **digital real estate as an investment vehicle** will continue to fuel metaverse economies
- By creating a **virtual analog of the physical world**, virtual space can take on the features of physical counterparts but with **infinite detail and the ability to expand**

User creation and agency are lynchpins of participation in the metaverse; user content created within some games already accounts for increased activity and engagement

EXAMPLES OF EARLY METAVERSE USER-GENERATED ECONOMIES



- Roblox revolves around users programming and playing games
- 9.5M developers on the Roblox platform
- Over half of in-game currency spend is being spent on user-generated content
- More than 1,250 developers made at least \$10,000 last year via in-game sales; more than 300 developers earned \$100K or more



- Rec Room's integrated game creation system allows users to make their own games inside of the game
- Of the 15M people who have used Rec Room, 2M have made content of some kind
- On average, creators are adding 20K "rooms" per day

Virtual reality will enable users to enter the metaverse, closing the gap between physical and digital realities

EXAMPLE APPLICATIONS OF VR IN THE METAVERSE: VIRTUALLY IMMERSIVE ENVIRONMENTS



SPORTS & EVENTS

Users will be able to feel an actual **“sense of presence”** as they step into live events like sports, concerts, and performances using VR — the metaverse will allow **digital twin events for any real-world media experience**



SHOPPING

Virtual versions of physical stores (as well as digital-native stores) **will become the norm for shopping experiences** — users will be able to enter, browse, and effortlessly try on products **using their digital avatar**



SEX & INTIMACY

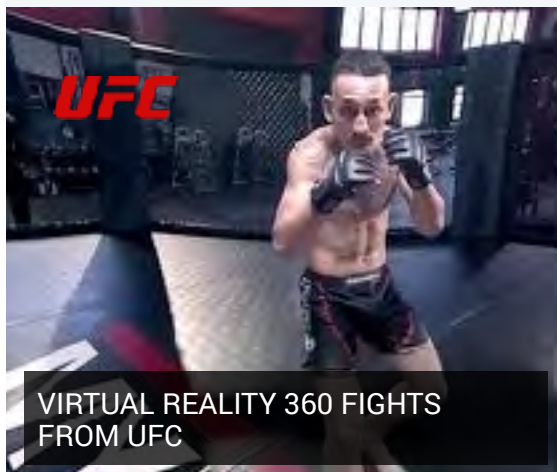
As VR accelerates, expect the gap from digital to physical sensations to close, making it difficult to distinguish the real from the virtual worlds — **metaverse sex and intimacy will be an immersive experience**



EDUCATION & LEARNING

VR will **enable education, learning, and workplace environments** to be interactive and engaging experiences — students and professionals will be able to **enter and participate in simulated situations that mimic the physical world**

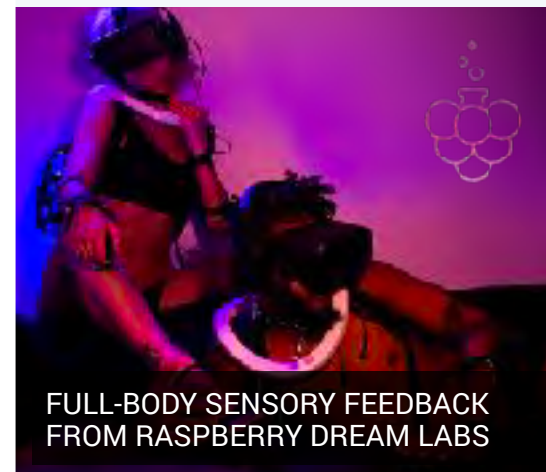
EARLY EXAMPLES



VIRTUAL REALITY 360 FIGHTS FROM UFC



WALMART VIRTUAL REALITY SHOPPING EXPERIENCE AT SXSW



FULL-BODY SENSORY FEEDBACK FROM RASPBERRY DREAM LABS



OSSO VR IMMERSIVE SURGICAL TRAINING

With the introduction of new device functionality, augmented reality connects the physical world with metaverse activities

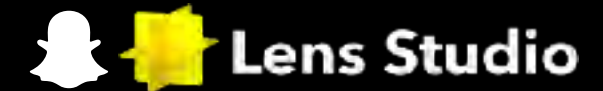
EXAMPLE IMPLICATIONS OF AR IN THE METAVERSE: SHARED DIGITAL EXPERIENCES



Advances in AR will continue to enable the creation of **multiplayer virtual experiences mapped to the physical world**



Mixed reality allows objects (e.g. holograms) to be shared virtually or placed within physical settings










AR overlays on real-world objects and locations provide unique, interactive visual experiences

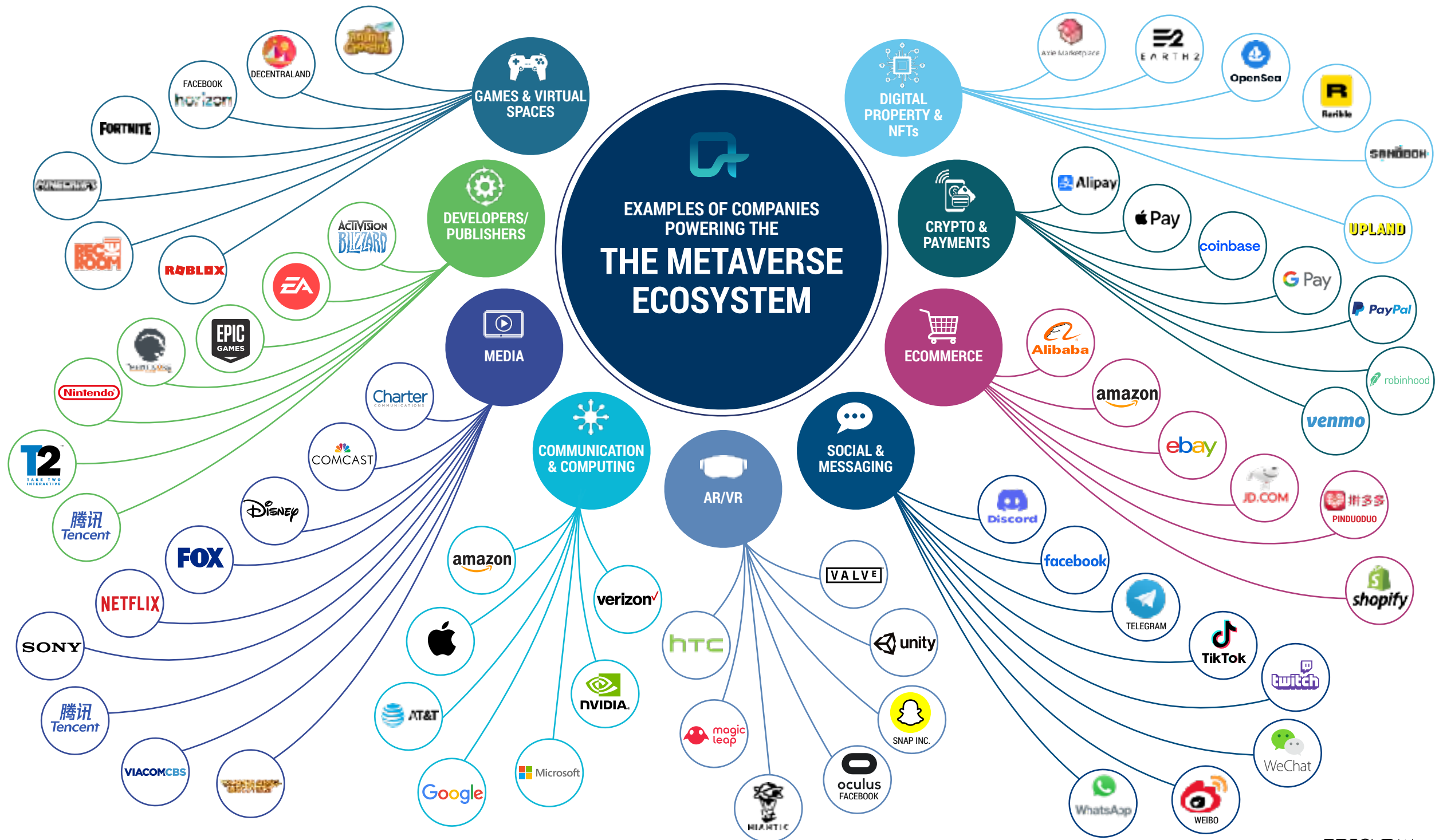


Interoperability between metaverse platforms is not likely to happen anytime soon; third parties, however, will be the first to integrate across metaverse platforms

POTENTIAL THIRD PARTIES FOR METAVERSE INTEGRATIONS

 Discord	 Spotify	 PayPal	venmo	 ENJIN
 SOUNDCLOUD	 STEAM	twitch	coinbase	 METAMASK

Companies building the metaverse will participate in an extensive ecosystem

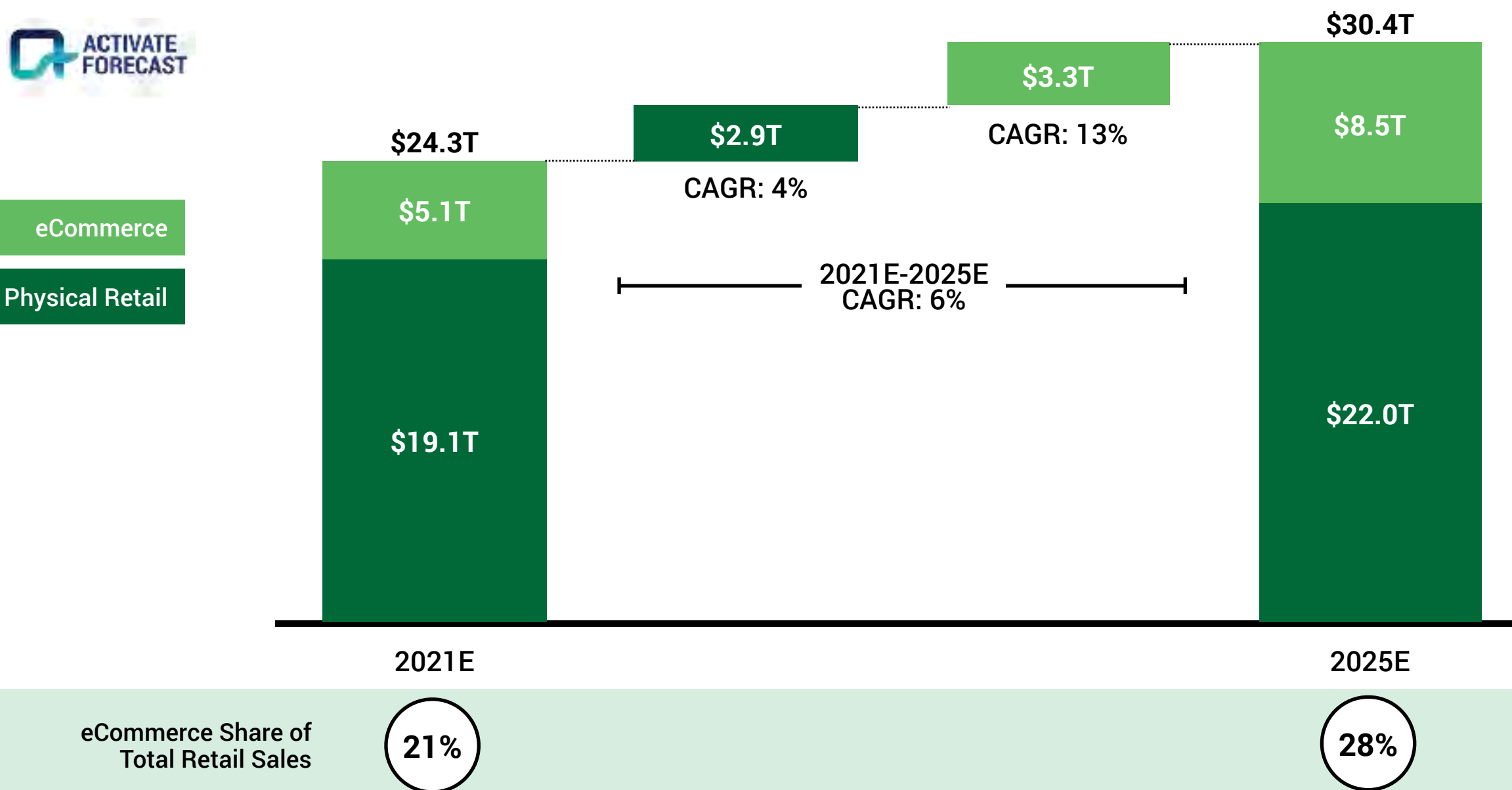


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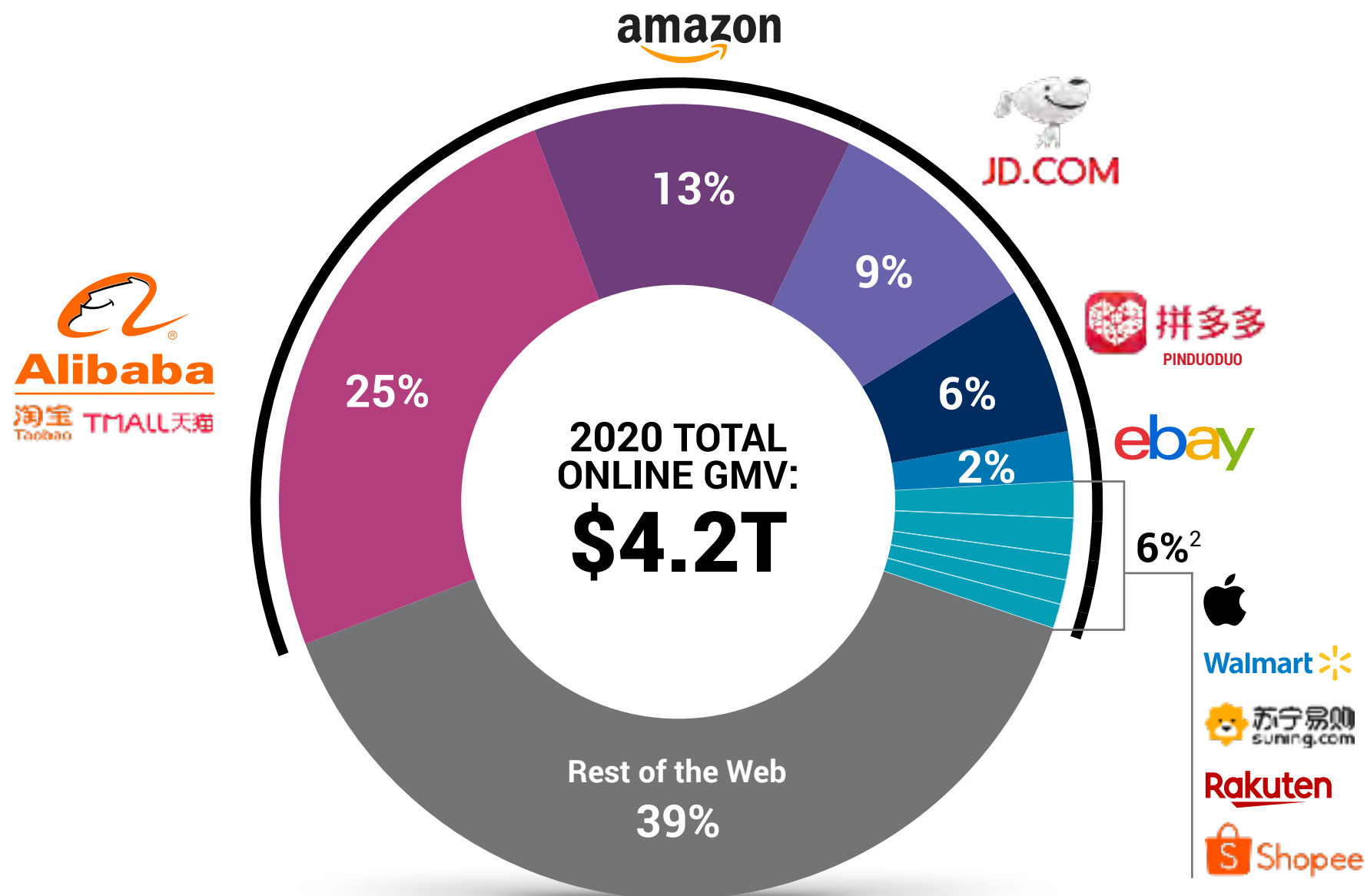
Globally, eCommerce is at an important inflection point: over the next four years, eCommerce will add more absolute dollars than physical retail

RETAIL SALES BY CHANNEL¹, GLOBAL, 2021E VS. 2025E, TRILLIONS USD



The 10 largest eCommerce players make up over 60% of global online gross merchandise volume

ONLINE GROSS MERCHANDISE VOLUME (GMV)¹, GLOBAL, 2020, % TOTAL ONLINE GMV



1. Excludes the combination of individual merchants using eCommerce enablement platforms (e.g. Shopify).

2. Each company accounts for between approximately 1% and 2% of the total online GMV.

Sources: Activate analysis, Company filings, Company press releases, Company sites, Digital Commerce 360, eMarketer, U.S. Internal Revenue Service, Research and Markets

New technologies will break down the barriers to higher eCommerce adoption; even the most expensive and complex product categories will now shift to online

CONSUMER PAIN POINT WHEN SHOPPING ONLINE

HOW ECOMMERCE WILL SOLVE

Limited ability to discover and search for products

(primarily text-based, some audio-enabled)



Visual search

(supported by text and audio)

Risk due to inability to test products before purchasing

(especially for more costly and complex product categories, such as auto, furniture, and jewelry)



Virtual try on and visualization

Long delivery wait times

(typically 1 day or more)

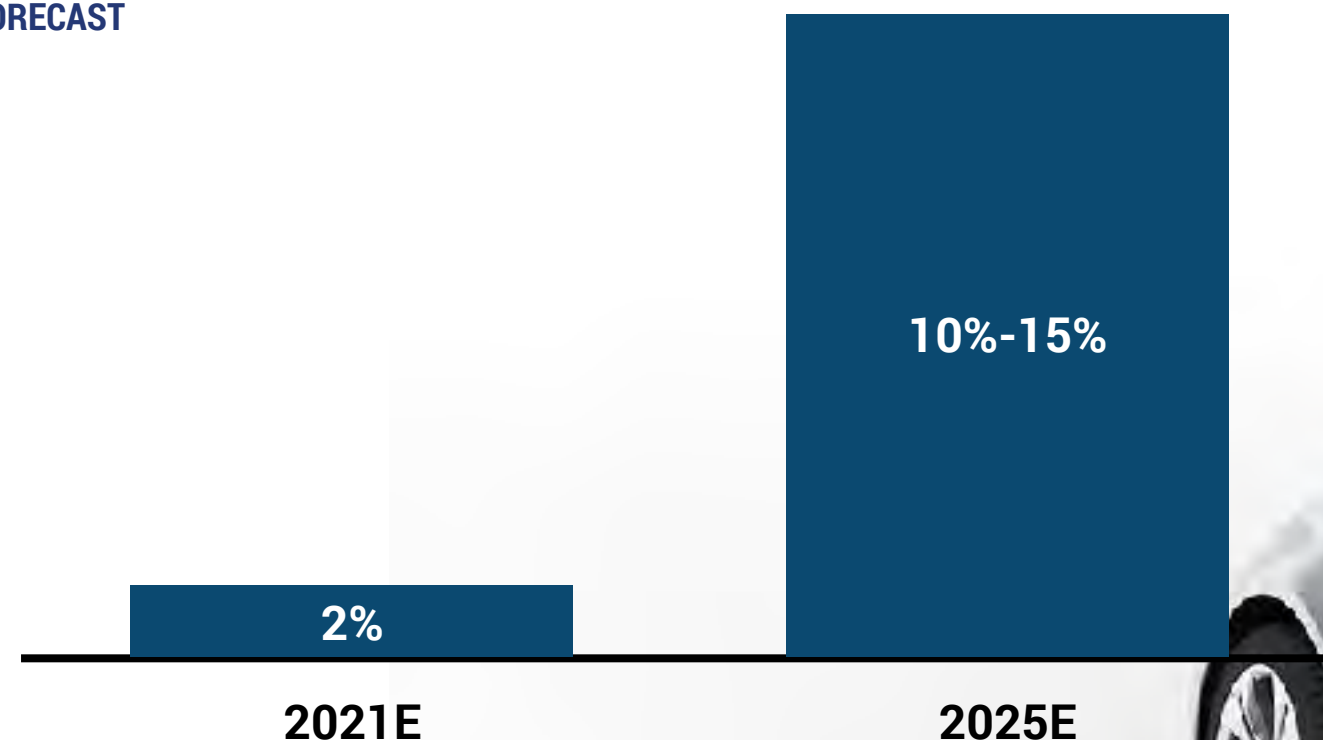


Ultrafast delivery

(2 hours or less)

We forecast that by 2025, 10% to 15% of cars will be purchased online and fulfilled via delivery (up from 2% today); despite the fact that auto has historically been one of the slowest product categories to move to eCommerce

**CAR PURCHASES COMPLETED ONLINE AND FULFILLED VIA DELIVERY,
U.S., 2021E VS. 2025E, % TOTAL CAR PURCHASES^{1, 2}**



Sales from car purchases completed online¹ and fulfilled via delivery will surpass
\$150B
annually by 2025

Total Car Purchases Completed Online¹ and Fulfilled via Delivery

850K

6M-10M

1. "Completed online" is defined as having set up the full car deal online, including the down payment, monthly payment, and trade-in. 2. "Total car purchases" includes both new and used cars.

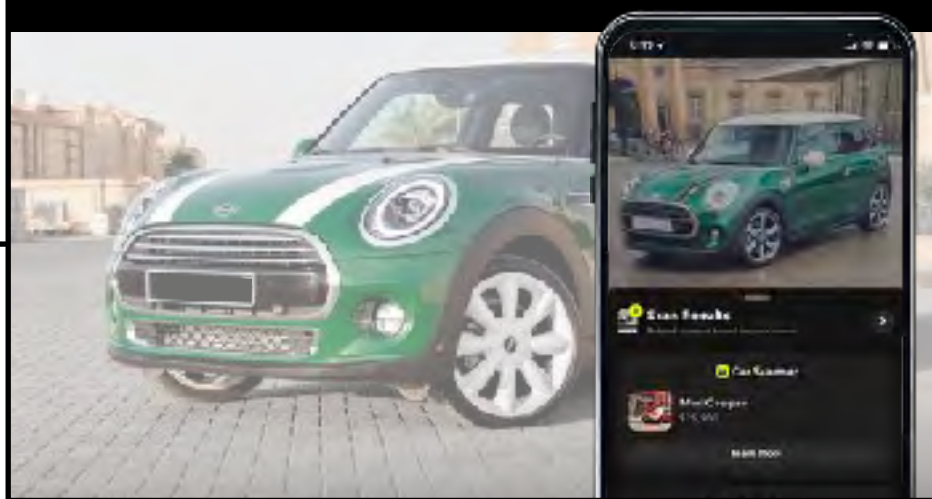
Sources: Activate analysis, Company filings, Company press releases, Company sites, Comscore, Cox Automotive, eMarketer, Federal Reserve Bank of St. Louis, IBISWorld, IHS Markit, Khaveen Investments, U.S. Bureau of Economic Analysis, U.S. Census Bureau, Wells Fargo

This transformation in auto will be enabled by improvements to the online car shopping experience

IMPROVEMENTS TO THE ONLINE CAR SHOPPING EXPERIENCE
THAT ARE ENABLING HIGHER ECOMMERCE PENETRATION FOR THE AUTO CATEGORY

 snapchat

VISUAL SEARCH



VIRTUAL VISUALIZATION



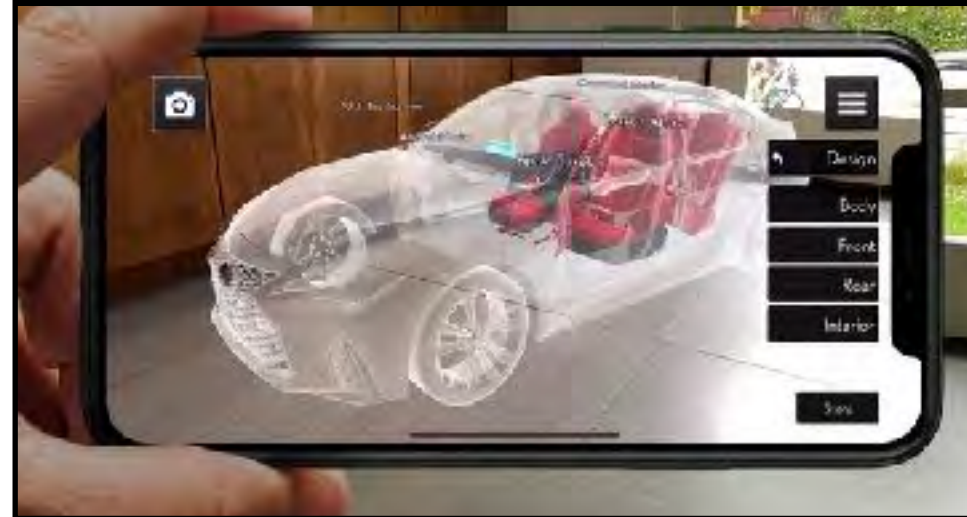
 LEXUS

▲ Exterior and Interior ▼

NEXT-DAY DELIVERY



 CARVANA



Visual search will be the next frontier for product discovery, allowing consumers to find products by scanning an item in person or using an image

EXAMPLE APPLICATIONS OF VISUAL SEARCH



EXAMPLE PLAYERS
OFFERING VISUAL SEARCH

amazon

Bing

ebay

Google

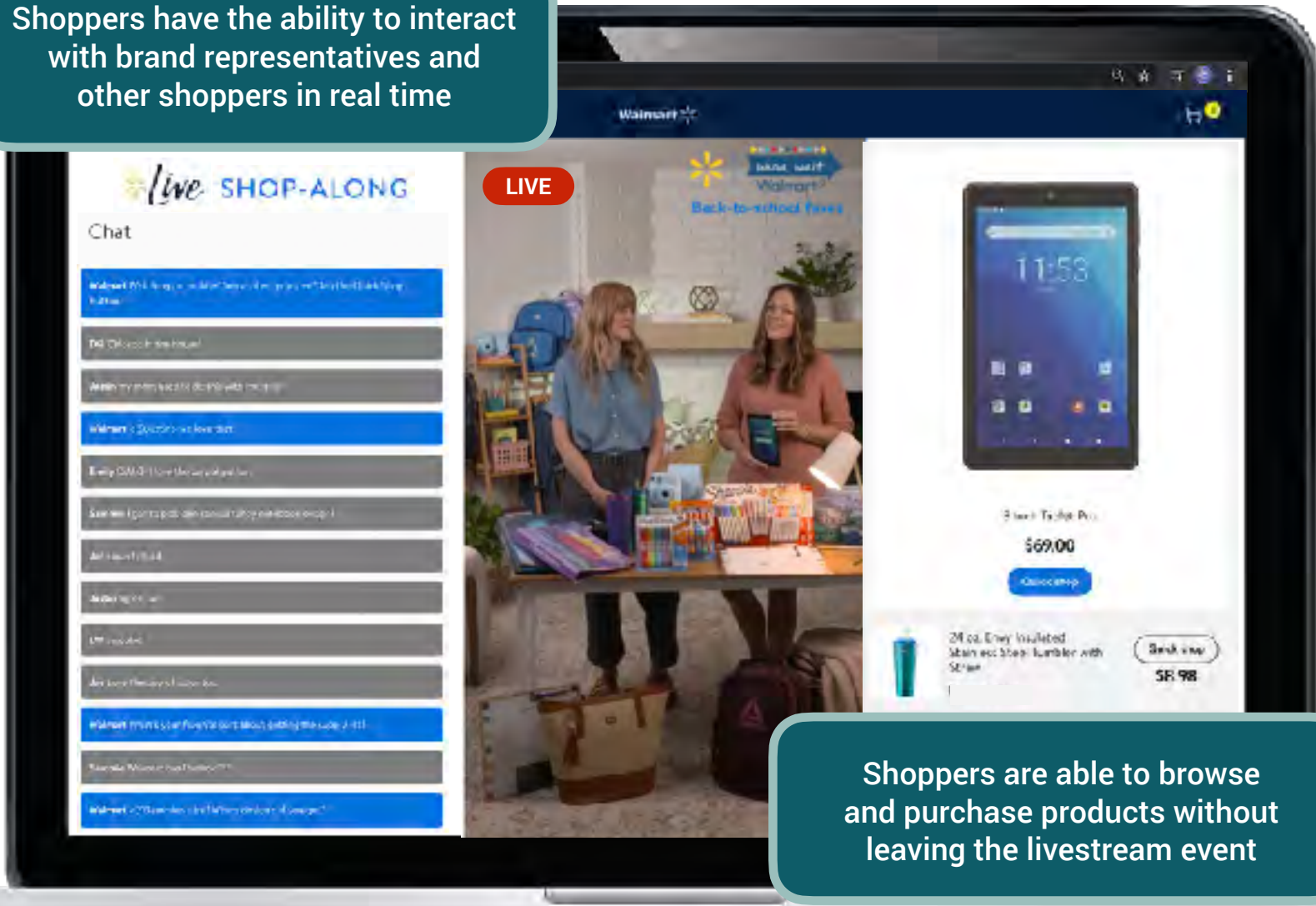
Pinterest

snapchat

To engage with customers and create another way of selling products, a significant number of retailers will participate in livestream shopping

LIVESTREAM SHOPPING EVENT EXAMPLE: Walmart JULY 2021 BACK-TO-SCHOOL EVENT

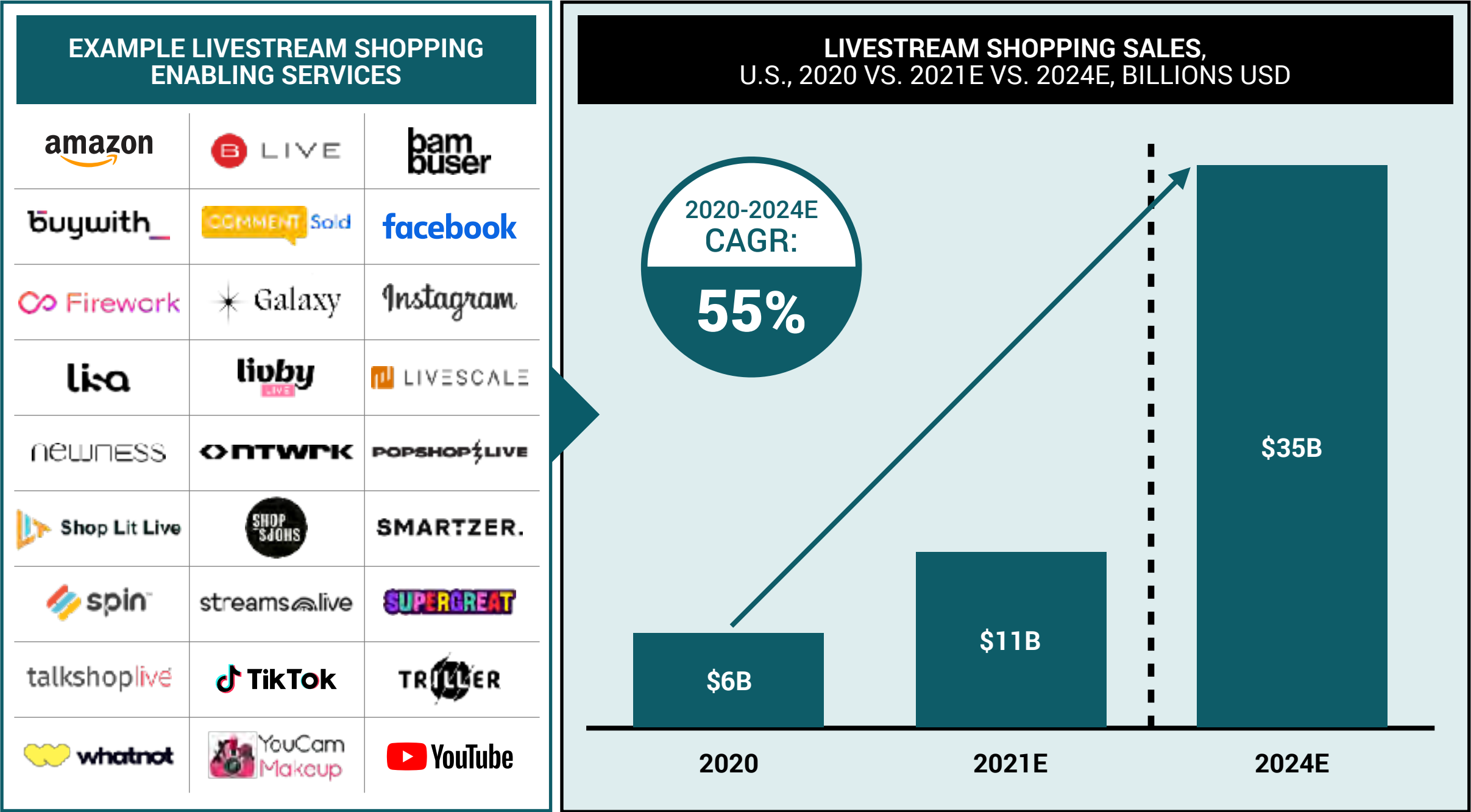
Shoppers have the ability to interact with brand representatives and other shoppers in real time



EXAMPLE RETAILERS THAT HOSTED THEIR FIRST U.S. LIVESTREAM SHOPPING EVENT IN THE LAST 12 MONTHS

Abercrombie & Fitch	ALDO	ANNE KLEIN	BEAUTYCOUNTER
COVERGIRL	Crete	dolce vita	HOLIGEAR
/kit·sch/	knix	KYLE COSMETICS™ BY KYLE JENNER	LG
★macy's	MODA OPERANDI	NET-A-PORTER	NORDSTROM
NYX	Off-White™	Outdoor Voices	PAC SUN
PELOTON	petco	Rare Beauty	REBECCA MINKOFF
SEPHORA	VERISHOP	Walmart	Zappos

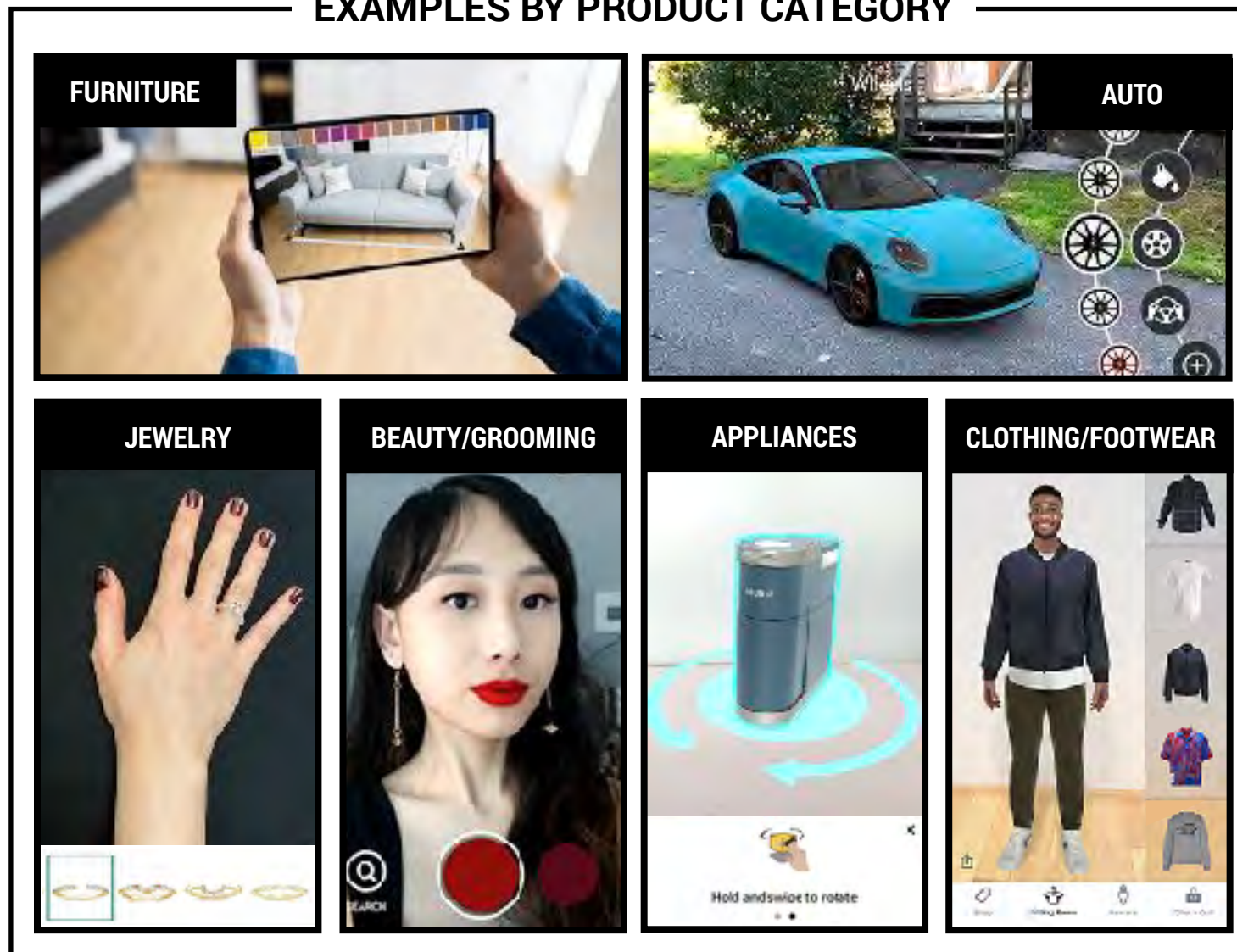
Livestream shopping sales will experience substantial growth, fueled by the large set of enabling services that make it simple for both retailers and individual sellers to host livestream shopping events



Winners in eCommerce will exploit virtual visualization and try on technologies to enhance the online shopping experience

Virtual try on and visualization tools allow consumers to view products in/on their live environment, photos, and/or personalized avatars

EXAMPLES BY PRODUCT CATEGORY

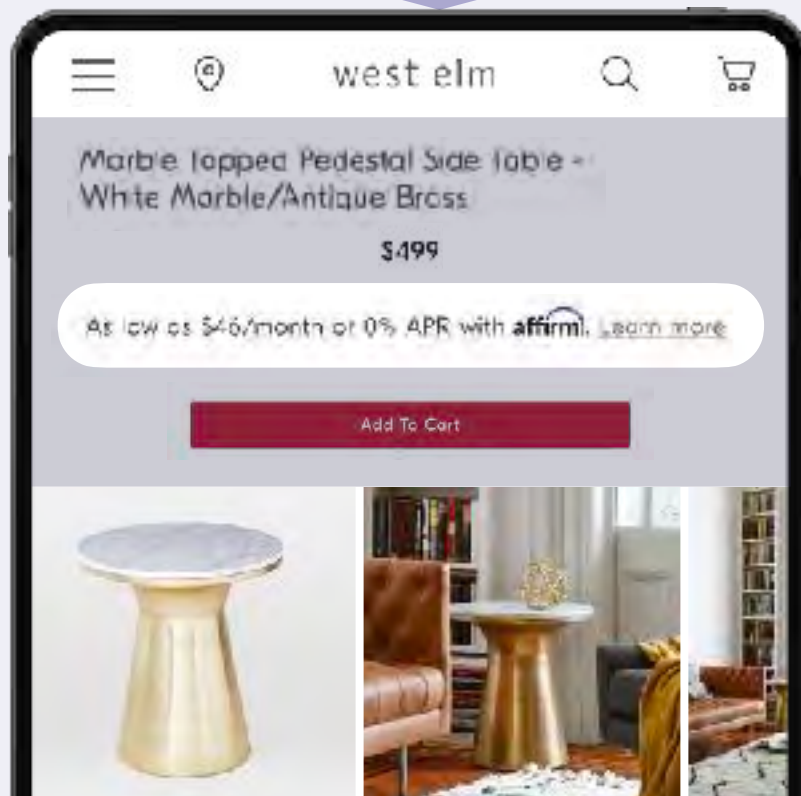


POTENTIAL BENEFITS

- 1 Increased conversion rates
- 2 Reduced return rates
- 3 Valuable data to inform product development and marketing
- 4 Higher awareness and engagement

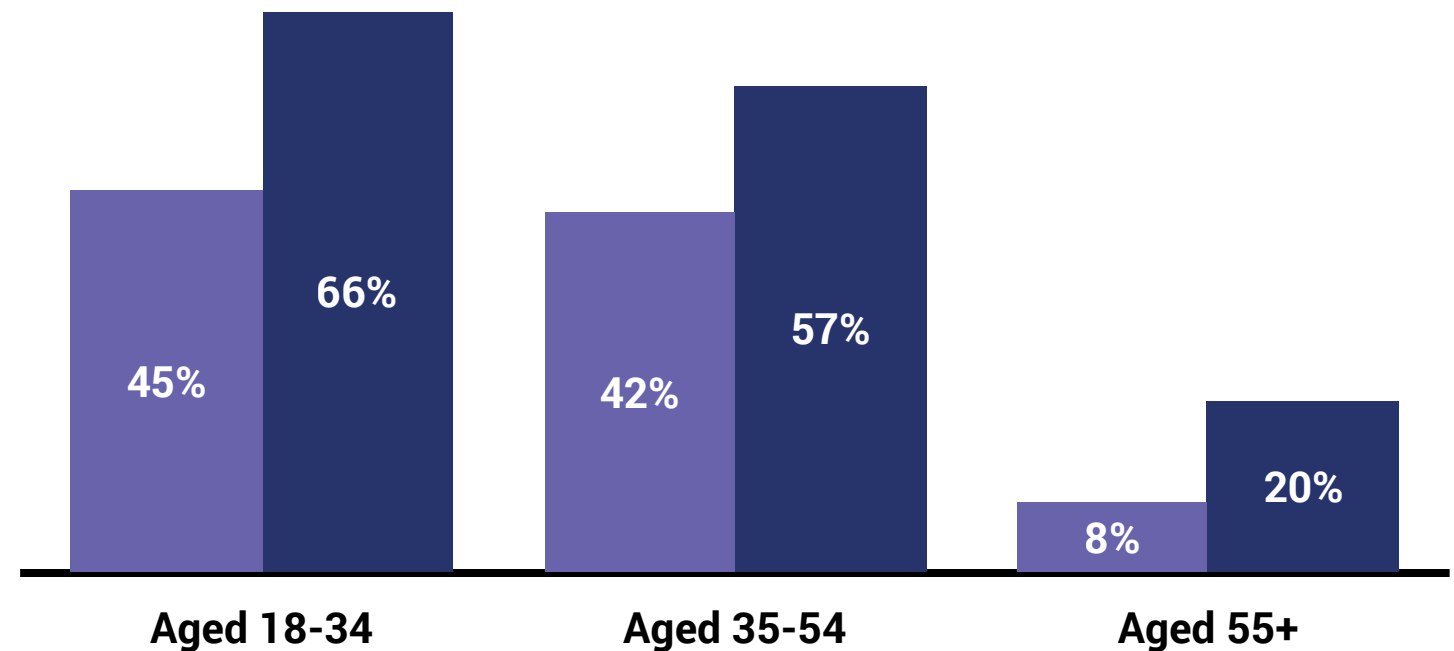
Every major online retailer will offer Buy Now, Pay Later

Buy Now, Pay Later services offer point-of-sale short-term installment plans, allowing consumers to pay for a purchase over time, rather than all at once



USAGE VS. EXPECTED USAGE OF BUY NOW, PAY LATER SERVICES WHEN SHOPPING ONLINE BY AGE GROUP, U.S., 2021, % ONLINE SHOPPERS¹

- Used Buy Now, Pay Later in the **LAST** 12 months
- Likely² to use Buy Now, Pay Later in the **NEXT** 12 months



EXAMPLE BUY NOW,
PAY LATER SERVICES



Klarna.

Pay in 4 from PayPal



Social networks will also deploy these technologies to deliver a seamless end-to-end online mobile shopping experience

ECOMMERCE FEATURES OFFERED IN THE U.S. BY SELECT MAJOR COMPANIES

IN-APP FEATURES ¹ FACILITATING AN END-TO-END ONLINE MOBILE SHOPPING EXPERIENCE	AMAZON	EBAY	WALMART	SNAPCHAT	INSTAGRAM	FACEBOOK	PINTEREST	TIKTOK
VISUAL SEARCH (SEARCH)	✓	✓		✓	ANNOUNCED		✓	
BRAND STOREFRONTS (BROWSING)	✓	✓	✓	✓	✓	✓	✓	✓
VIRTUAL TRY ON / VISUALIZATION TOOLS (CONSIDERATION)	✓		ANNOUNCED	✓	✓	✓	✓	IN BETA
CHECKOUT (TRANSACTION)	✓	✓	✓	✓	✓	✓		ANNOUNCED

Amazon and Snapchat have built the full set of capabilities to offer an end-to-end online mobile shopping experience

The ultrafast delivery wars have started, with no end in sight; new entrants claim that they will be able to deliver online orders in as little as 5 minutes

Across product categories, a large share of consumers shop in person primarily because they do not want to wait for delivery/pickup

To address this, a growing number of eCommerce companies are launching ultrafast delivery options

39%

of in-person **grocery** shoppers¹...



44%

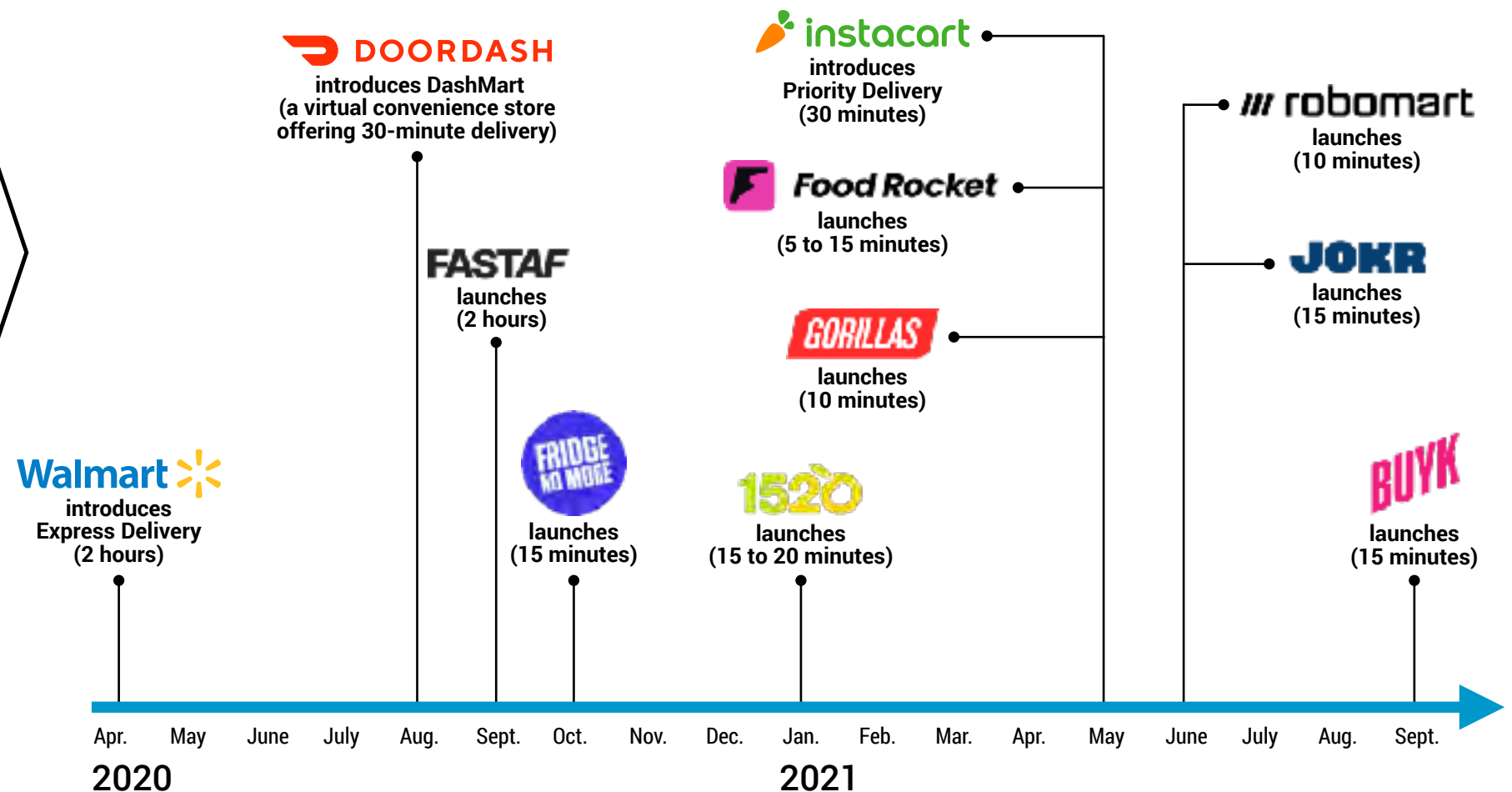
of in-person **beauty/grooming**² shoppers¹...

38%

of in-person **clothing** shoppers¹...

...report that **one of the top reasons**³ that they **shop in person** for the product category is because **they want their items immediately** (e.g. they do not want to wait for shipping or a pickup time slot)

ULTRAFAST DELIVERY OPTIONS LAUNCHED IN THE U.S. IN THE LAST 18 MONTHS⁴



1. "In-person shoppers" are defined as U.S. adults aged 18+ who purchase item(s) in the product category at least once per year and who have shopped in person for item(s) in the product category since the start of the COVID-19 outbreak (i.e. since Mar. 2020). 2. "Beauty/grooming" does not include personal care (e.g. deodorant, toothpaste, contact solution, q-tips, hand sanitizer). 3. Consumers were asked to select up to two top reasons. 4. Not exhaustive.

Sources: Activate analysis, Activate COVID-19 Consumer Technology & Media Study May 2021 (n = 2,913), CNBC, Company press releases, Company sites, Glossy, Grocery Dive, TechCrunch

More than one quarter of households have signed up for a new paid shopping program membership during COVID-19; the average household now pays for nearly two memberships

PAID SHOPPING PROGRAM MEMBERSHIP¹ HOUSEHOLD PENETRATION FOR SELECT MAJOR SHOPPING PROGRAMS, U.S., 2021

27%

Share of households that signed up for a new paid shopping program membership^{1,2} during the COVID-19 outbreak³

83%

Share of these households that plan to keep⁴ at least one of these new paid shopping program memberships^{1,2} over the next 12 months



1.7

Number of shopping program memberships¹ for which the average household pays

80%

Share of households that pay for at least one shopping program membership¹

PAID SHOPPING PROGRAM MEMBERSHIPS¹ TESTED

amazon prime

Walmart+

sam's club

COSTCO WHOLESALE

instacart express

Albertsons fresh pass⁵

BED BATH & BEYOND

CVS carepass

BJ's

Shipt Everyday

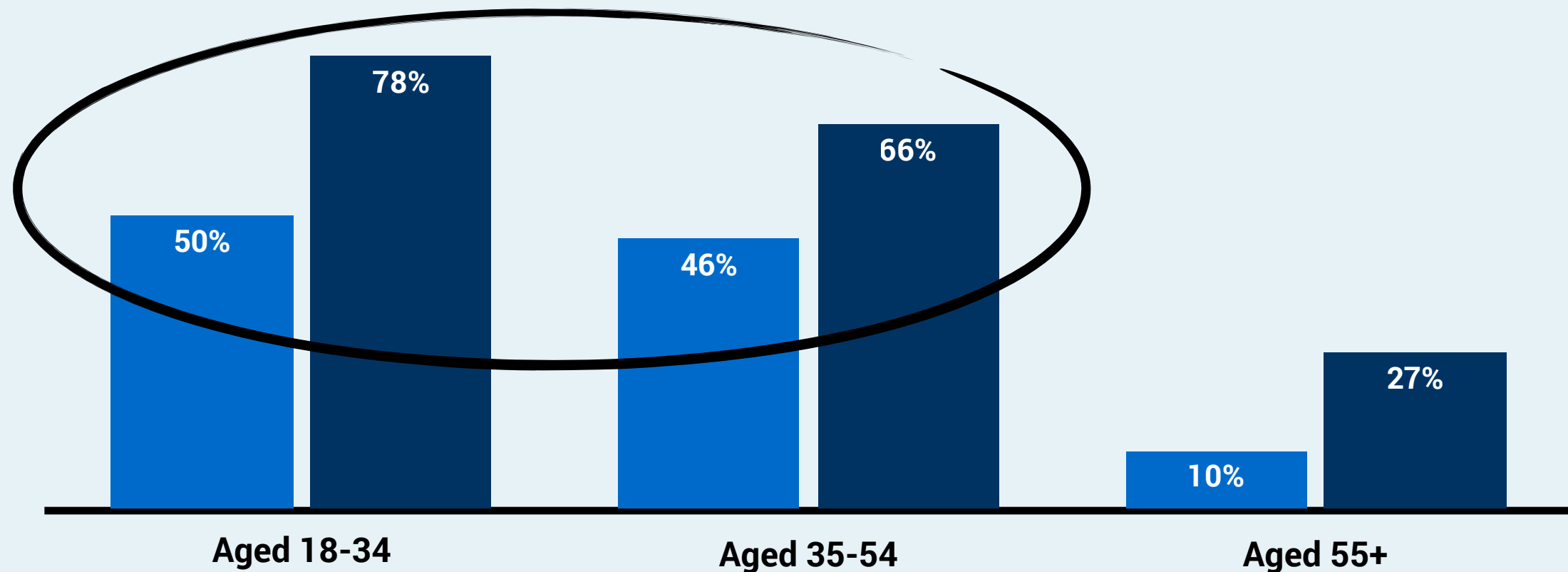
freshdirect DeliveryPass

Online re-commerce is already a mainstream behavior and will grow substantially

PARTICIPATION VS. EXPECTED PARTICIPATION IN ONLINE RE-COMMERCE BY AGE GROUP,
U.S., 2021, % ONLINE SHOPPERS¹



- Participated in online re-commerce in the **LAST** 12 months
- Likely² to participate in online re-commerce in the **NEXT** 12 months



“Participation in online re-commerce” is defined as renting, buying, and/or selling used/secondhand clothing and/or accessories online

A large number of retailers are launching online re-commerce programs; this will be a requirement for all retailers going forward

ONLINE CLOTHING AND ACCESSORIES RE-COMMERCE LANDSCAPE¹

	RESALE	RENTAL
BRANDS / MULTI-BRAND RETAILERS	Abercrombie & Fitch adidas Alexander McQUEEN ARCTERYX ATHLETA BALENCIAGA BANANA REPUBLIC B R A S S BURBERRY carhartt COACH COS CUYANA DAGNEDOVER EILEEN FISHER FABLETICS FRAME GAP GUCCI GUESS HOLLISTER LA LIGNE Levi's LO & SONS lululemon M.M. LAFLEUR Madewell MARA HOFFMAN MECC Michael Stars MR PORTER ANNOUNCED Mulberry MYTHERESA NET-A-PORTER ANNOUNCED new balance THE NORTH FACE OSTREY THE OUTHET ANNOUNCED PACSUN patagonia prAna RE/DONE Reebok Reformation HEI STELLA MCCARTNEY TAYLOR STITCH TOAD&CO TOMMY HILFIGER Vera Bradley	ba&sh BANANA REPUBLIC THE BLK TUX DRESS THE POPULATION Eddie Bauer ELOQUII EXPRESS FASHION TO FIGURE GANNI H&M NEW YORK & COMPANY nicole miller RALPH LAUREN REBECCA MINKOFF REBECCA TAYLOR SCOTCH & SODA AMSTERDAM VINCE.
THIRD-PARTY PLATFORMS / MARKETPLACES	EDIBS amazon EAP EASY AS STEAL BAGROMANCE craigslist CUDONI CURTSY depop dotte ebay Etsy Facebook Marketplace FARFETCH FASHIONPHILE Galaxy GOAT Goodfair GRAILED Helene hewi. kidizen kids clock THE LUXURY CLOSET nuuly thrift P POSHMARK Queenly TheRealReal REBAG REBELLE RENT THE RUNWAY Requirer STADIUM GOODS StockX THREDUP THRIFT+ TRADESY Vestiaire Collective Vinted Walmart YOOGI'S CLOSET	ARMOIRE EAP EASY AS STEAL BAGROMANCE FASHIONPASS gwynnie bee. HAVERDASH LE TOTE modern man style box MOTHERHOOD RENTAL THE MR. & MS. COLLECTION NOVA nuulyrent SEASONS O C T O Rainey's Closet RENT THE RUNWAY Style Lend TAELORE teacherstylebox TULIP vivrelle WARDROBE
RE-COMMERCE- AS-A-SERVICE	ARCHIVE THE ARCHIVIST Flyp LUXCLUSIF RECURATE REFLAUNT THE RENTAL WORKSHOP THREDUP treet TROVE	CaaSle Lizee

Although online restaurant ordering behavior has accelerated during the pandemic, there is still considerable growth ahead

SHARE OF CONSUMERS WHO PLACED ONLINE ORDERS FOR RESTAURANT DELIVERY OR PICKUP WEEKLY ON AVERAGE OVER THE LAST 12 MONTHS, U.S., 2021, % ADULTS AGED 18+



30%
of consumers
make online restaurant
orders weekly

EXAMPLES OF RESTAURANT INNOVATION IN RESPONSE TO CONSUMER DEMAND FOR ONLINE ORDER PICKUP/DELIVERY

Online-Only Locations	Entire restaurants or specific areas within restaurants (e.g. drive-thru lanes, parking spots, pickup windows) that are exclusively designated for online order pickup and delivery, streamlining fulfillment and decreasing wait times
Geofencing Technology	Location-based technology that notifies restaurant employees when pickup customers / delivery workers are arriving, facilitating more accurately timed order handoffs to ensure food freshness
Pickup Lockers	Temperature-controlled food lockers that create a fully contactless pickup experience
Ghost Kitchens	Food preparation locations that are solely dedicated to fulfilling online order delivery, enabling the optimization and expansion of delivery services

EXAMPLES



eCommerce will expand beyond physical goods to digital goods; gaming platforms will be the natural place for retailers to start as gamers are already trained to value virtual items

EXAMPLES OF RETAILERS SELLING DIGITAL GOODS



Gucci partnered with gaming platform **Roblox** to launch a virtual exhibition featuring a collection of in-game items for purchase — **one virtual bag resold for \$4K** (higher than the price of the physical bag)



The **NFL** collaborated with the game **Fortnite** to offer player skins — within 2 months, **more than \$50M of skins were sold** (3.3M purchased at \$15 each)



Burberry released its first NFT collection in the game **Blankos Block Party** — the main item, a player skin, **netted close to \$225K and sold out within 20 seconds**



Digital design studio **RTFKT** worked with crypto-artist **FEWOCIOUS** to create a set of NFT sneakers — the limited run **sold out in 7 minutes and generated over \$3M**



Digital real estate firm **Republic Realm** spent nearly **\$1M** on a plot of land in the virtual world **Decentraland** to develop the shopping mall **Metajuku** (left), where shoppers can purchase from digital-first fashion brands such as **DressX** (right) and **Tribute Brand**

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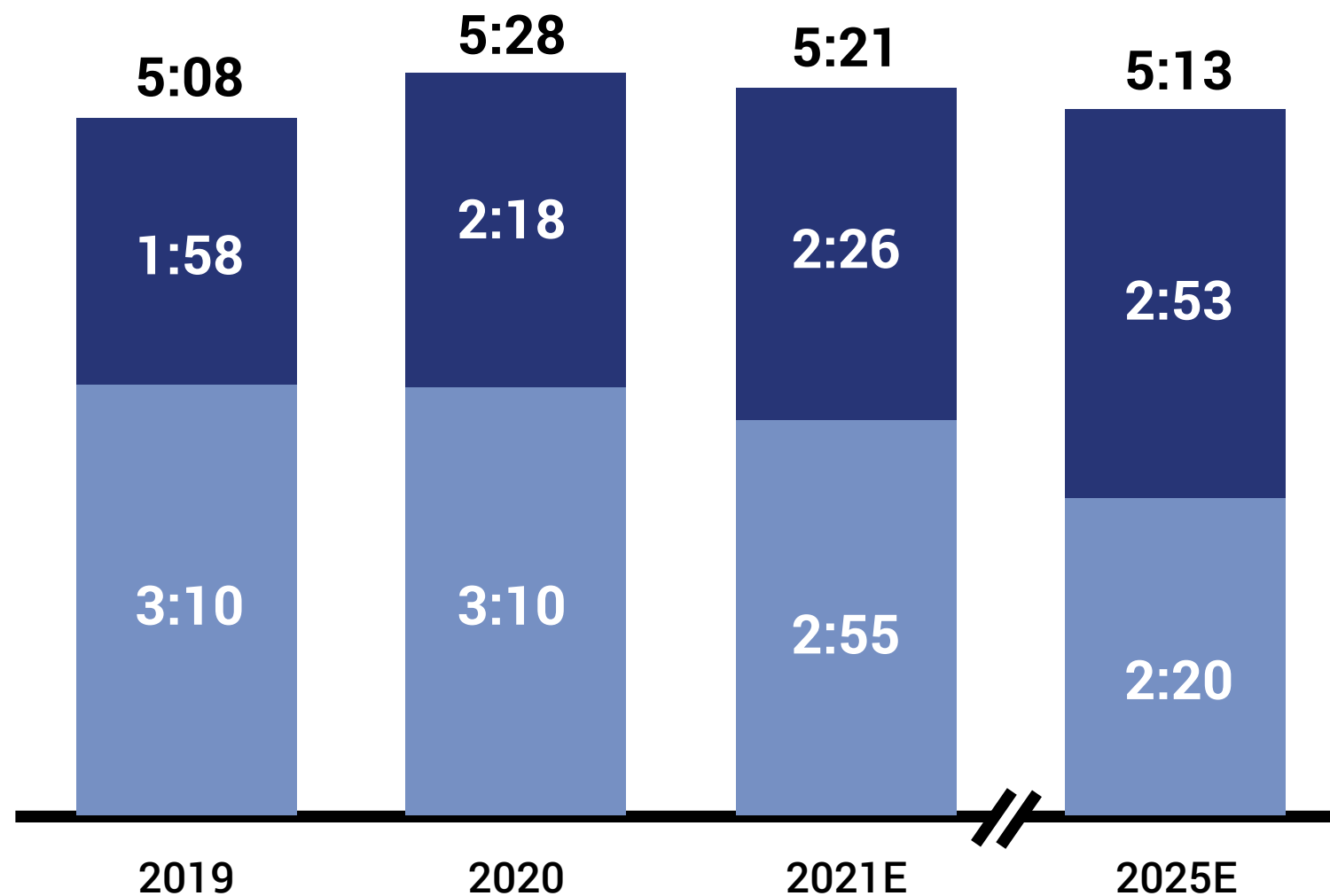
Digital video time spend will continue to grow and replace television viewing time

AVERAGE DAILY VIDEO TIME SPENT PER ADULT AGED 18+ BY TYPE, U.S., 2019-2021E VS. 2025E, HOURS:MINUTES




Digital Video¹


Television²



2019-2025E
CAGR:

0.2%

2021E-2025E
CAGR:

-0.7%

6.5%

4.2%

-5.0%

-5.4%

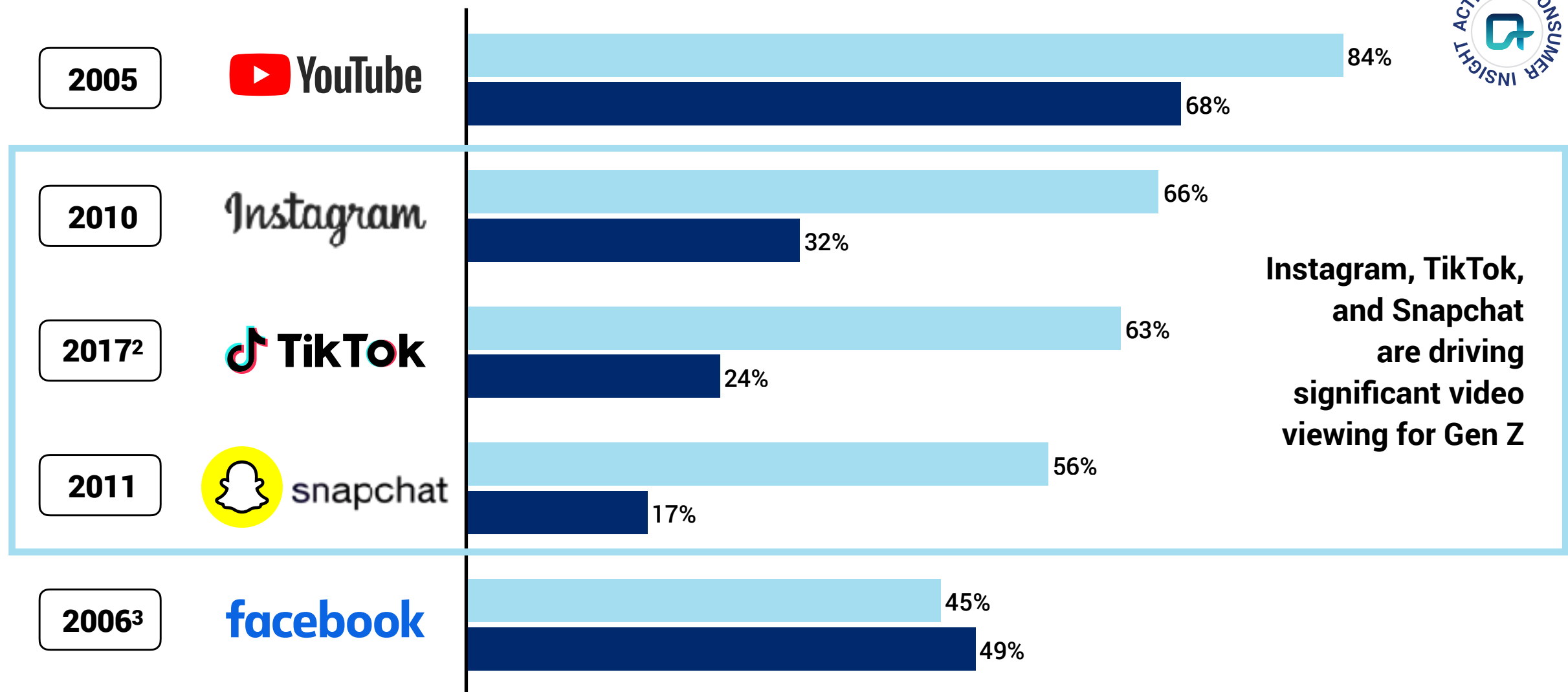
1. "Digital video" includes video watched on a mobile phone, tablet, laptop computer, desktop computer, or Connected TV. Connected TVs are TV sets that can connect to the internet through built-in internet capabilities (i.e. Smart TVs) or through another device such as a streaming device (e.g. Amazon Fire TV, Apple TV, Google Chromecast, Roku), game console, or Blu-ray player. 2. "Television" includes traditional live and time-shifted (e.g. DVR) television viewing.
Sources: Activate analysis, eMarketer, GWI, Nielsen, Pew Research Center, U.S. Bureau of Labor Statistics

Social video usage (especially by Gen Z) will continue to contribute to digital video growth

VIDEO VIEWERSHIP ON SOCIAL PLATFORMS BY AGE GROUP, U.S., 2021, % VIDEO WATCHERS¹

YEAR LAUNCHED

AGE GROUP: 18-24 25+



In response to TikTok's growth, other social platforms have launched their own short-form video products

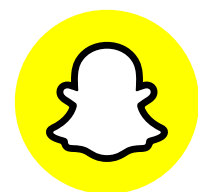
SELECT RECENTLY LAUNCHED SHORT-FORM VIDEO PRODUCTS

Instagram



REELS

Date Launched:
August 2020



snapchat



SPOTLIGHT

Date Launched:
November 2020

 YouTube



SHORTS

Date Launched:
March 2021¹

facebook










REELS

Date Launched:
September 2021¹

TikTok has followed the path of other social media companies by expanding into premium long-form video with media partners – social platforms will increasingly be hubs for this type of content



VIDEO LENGTH	Increased max video length to 3 minutes, from 60 seconds 
CONNECTED TV¹ DISTRIBUTION	<div>  MORE ON TIKTOK AUG. 2020 </div> <p>App available on Amazon Fire TV devices featuring curated TikTok content including compilations and interviews with creators</p> 
PREMIUM VIDEO PARTNERSHIPS	<div>  #TUBITAUGHTME JUNE 2021 </div> <p>Hour-long livestream with trivia and other challenges highlighting '90s and 2000s TV shows and stars</p>  <div>  THE ENCORE JUNE 2020 </div> <p>Live aftershow for ESPN's The Last Dance documentary, hosted by SportsCenter's Sage Steele</p> 

TIKTOK COMPETITOR LONG-FORM PREMIUM VIDEO INITIATIVES



DATE LAUNCHED: AUG. 2017

Hub for long-form, episodic content (in addition to short-form content)

SELECT CONTENT PARTNERS



INSTAGRAM TV

DATE LAUNCHED: JUNE 2018

Separate app and integrated feature in existing Instagram app that enables video uploads up to an hour long



SNAP ORIGINALS

DATE LAUNCHED: OCT. 2018

Section within Snapchat Discover for exclusive episodic programming from premium content partners

SELECT CONTENT PARTNERS









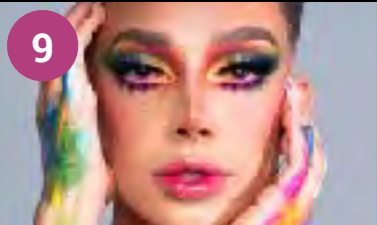

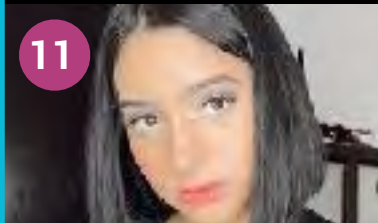

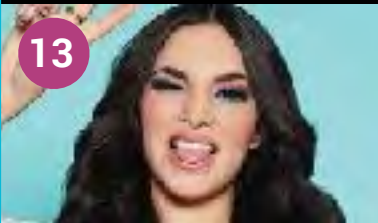


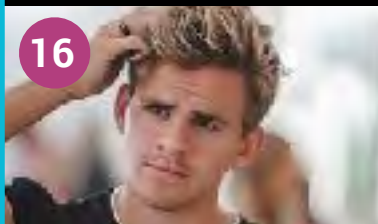



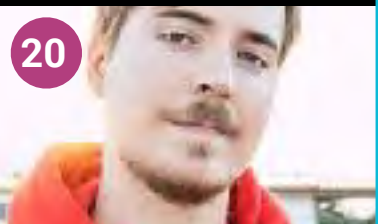
NBCUniversal CONDÉ NAST



Consumers will use each social video platform for different creators and genres (1/2)









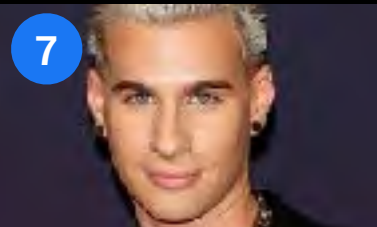


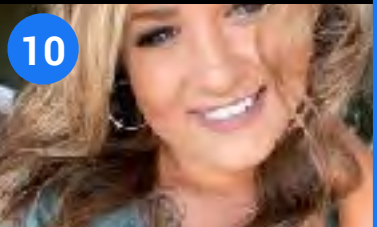
**TOP TWENTY
TIKTOK
INFLUENCERS¹,
U.S., 2021**

1  Khaby Lamé COMEDIC CONTENT CREATOR	2  BTS K-POP BOY BAND	3  Kylie Jenner REALITY TV STAR AND SOCIAL MEDIA PERSONALITY	4  Bella Poarch SINGER AND SOCIAL MEDIA PERSONALITY	5  Charli D'Amelio DANCER AND LIFESTYLE CONTENT CREATOR
6  Addison Rae DANCER AND LIFESTYLE CONTENT CREATOR	7  Nikita Dragun MAKEUP ARTIST AND MODEL	8  ROSÁ COMEDIC SKIT CREATOR	9  James Charles MAKEUP ARTIST	10  Karol G SINGER AND SONGWRITER
11  Dominik LIFESTYLE CONTENT CREATOR	12  Noah Schnapp ACTOR	13  Kimberly Loaiza DANCER AND LIFESTYLE CONTENT CREATOR	14  Savannah Labrant DANCER AND LIFESTYLE CONTENT CREATOR	15  Will Smith ACTOR AND RAPPER
16  Cole LaBrant DANCER AND LIFESTYLE CONTENT CREATOR	17  Darian Rojas LIFESTYLE CONTENT CREATOR	18  JoJo Siwa DANCER AND SINGER	19  Mia Khalifa MEDIA PERSONALITY AND LIFESTYLE CONTENT CREATOR	20  MrBeast STUNT PERFORMER

Consumers will use each social video platform for different creators and genres (2/2)

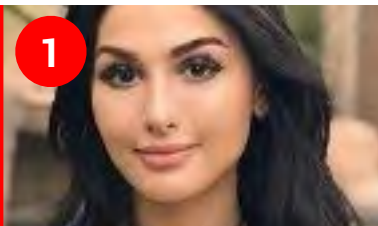






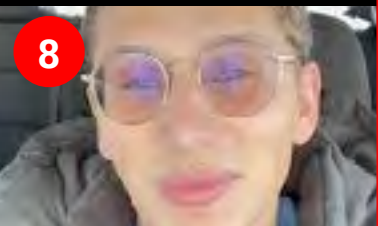




TOP TEN FACEBOOK INFLUENCERS¹, U.S., 2021

1  Julius Dein STREET MAGICIAN AND ILLUSIONIST	2  Adley COMEDIC CONTENT CREATOR	3  Dhar Mann FILMMAKER AND ENTREPRENEUR	4  BigDawsTv PRANKSTER	5  Benny Johnson POLITICAL COLUMNIST
6  Steve Harvey ENTERTAINER AND COMEDIAN	7  Brad Mondo HAIRSTYLIST AND ENTREPRENEUR	8  Gaitlyn Rae PET MONKEY	9  Angela Yee RADIO HOST	10  Kendall Rae TRUE CRIME AND CONSPIRACY COMMENTATOR

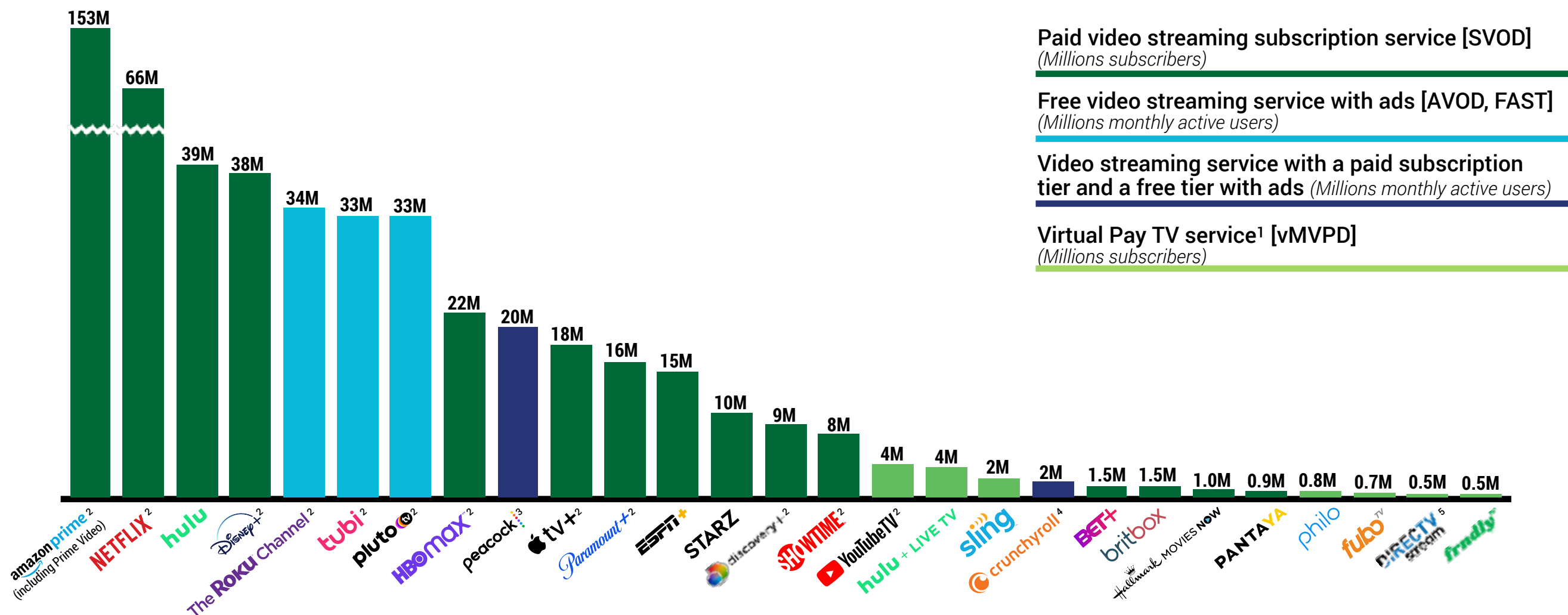


TOP TEN YOUTUBE INFLUENCERS¹, U.S., 2021

1  SSSniper Wolf GAMER AND CREATOR OF REACTION VIDEOS	2  Dhar Mann FILMMAKER AND ENTREPRENEUR	3  CookieSwirlC CHILDREN'S ENTERTAINMENT CONTENT CREATOR	4  Toys and Colors CHILDREN'S ENTERTAINMENT CONTENT CREATOR	5  Ryan's World CHILDREN'S ENTERTAINMENT CONTENT CREATOR
6  Desmond Dennis SINGER AND VLOGGER	7  MrBeast STUNT PERFORMER	8  Dylan Lemay FOOD AND LIFESTYLE CONTENT CREATOR	9  Daniel LaBelle COMEDIC CONTENT CREATOR	10  Therealdarius COMEDIC CONTENT CREATOR

Competition among the major streaming services is intensifying, as new paid and free services compete with other forms of digital video and television for consumer attention

ESTIMATED NUMBER OF SUBSCRIBERS/USERS BY SELECT VIDEO STREAMING SERVICES, U.S., 2021 OR MOST RECENT, MILLIONS SUBSCRIBERS / MILLIONS MONTHLY ACTIVE USERS

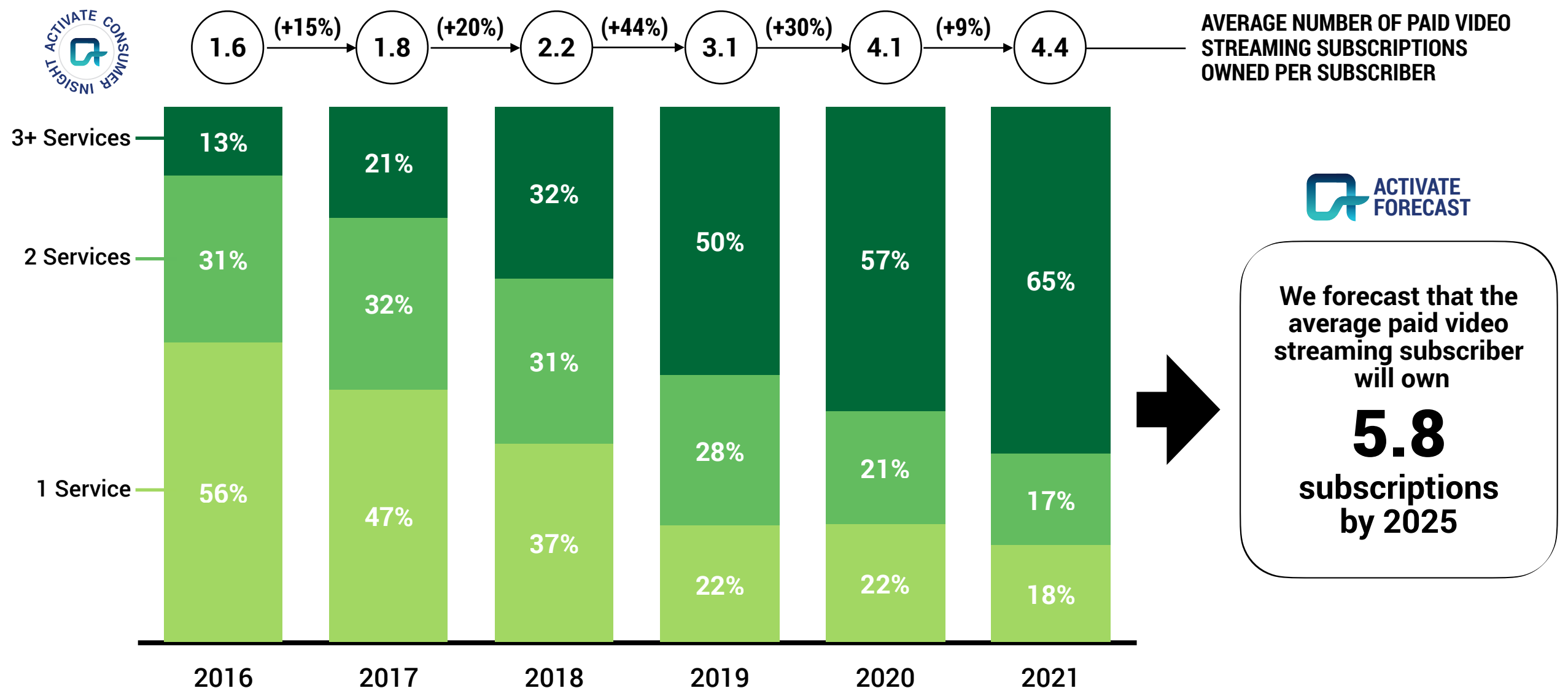


Note: Figures reflect latest publicly disclosed statistics, unless noted otherwise. 1. "Virtual Pay TV service" is defined as a service that delivers TV through the internet without a set-top box. 2. Reflects estimate. 3. Reflects monthly active users disclosed by Peacock. Total sign-ups reached 54M. 4. Reflects estimated paid subscribers. 5. Reflects paid subscribers to AT&T TV Now, which was rebranded as DirecTV Stream in August 2021.

Sources: Activate analysis, Activate 2021 Consumer Technology & Media Research Study (n = 4,018), Activate 2021 Consumer Video Research Study (n = 2,014), Bank of America, Company filings, Company press releases, Company sites, Consumer Intelligence Research Partners LLC, Deutsche Bank, FierceVideo, J.P. Morgan, Los Angeles Times, MarketScreener, MoffettNathanson, RBC Capital Markets, The Streamable, TechCrunch, Variety, The Verge, The Washington Post

The average paid video streaming subscriber pays for 4.4 subscriptions today; we have been tracking this through our consumer research for the past six years and forecast that the number will increase to 5.8 subscriptions by 2025

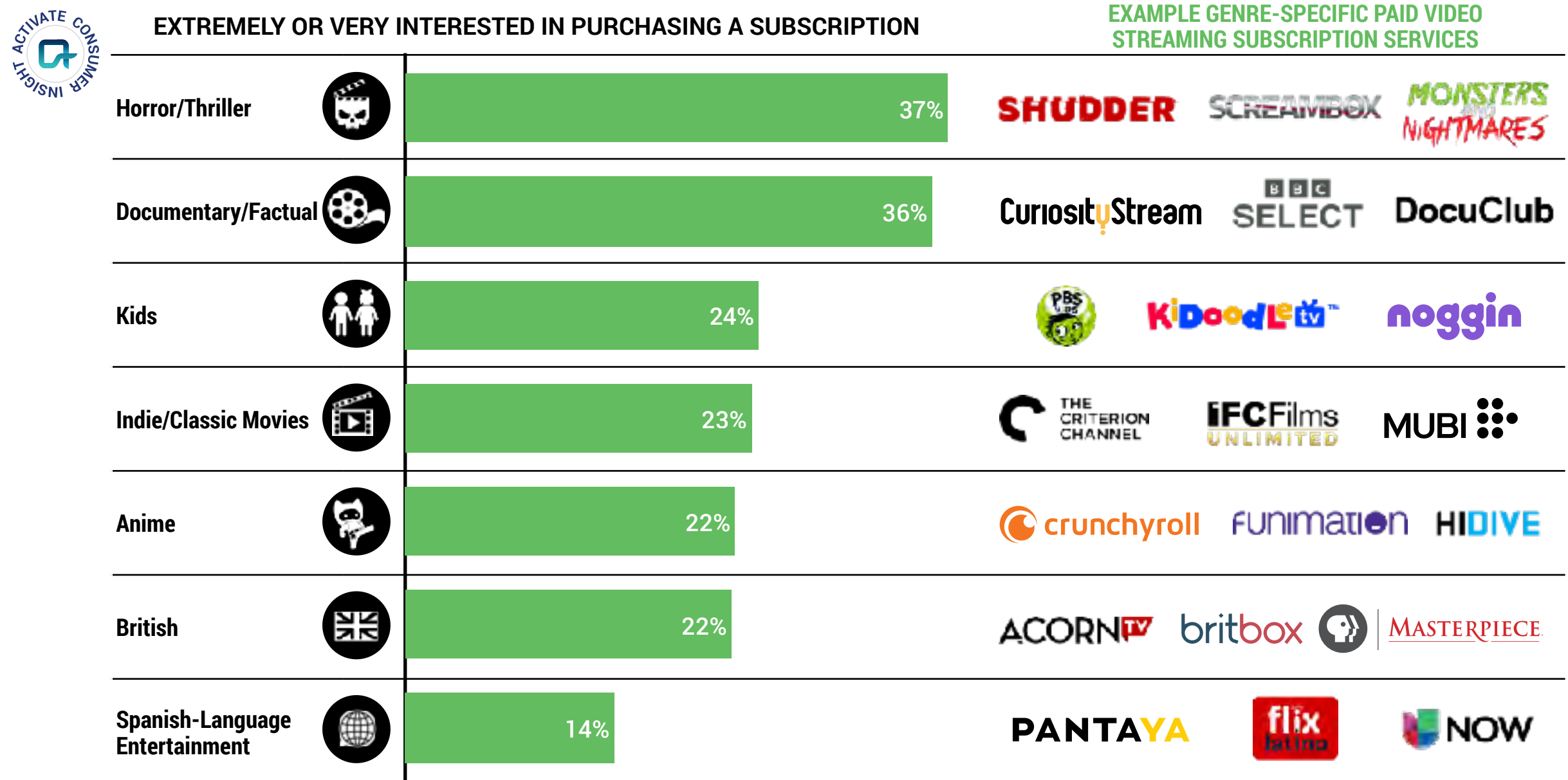
**NUMBER OF PAID VIDEO STREAMING SUBSCRIPTIONS OWNED PER SUBSCRIBER,
U.S., 2016-2021, % PAID VIDEO STREAMING SUBSCRIPTION OWNERS AGED 18+**



Sources: Activate analysis, Activate 2016 Consumer Technology & Media Research Study (n = 4,000), Activate 2017 Consumer Technology & Media Research Study (n = 4,047), Activate 2018 Consumer Technology & Media Research Study (n = 4,000), Activate 2019 Consumer Technology & Media Research Study (n = 4,006), Activate 2020 Consumer Technology & Media Research Study (n = 4,003), Activate 2021 Consumer Technology & Media Research Study (n = 4,018), Activate 2021 Consumer Video Research Study (n = 2,014), PricewaterhouseCoopers, U.S. Department of Labor

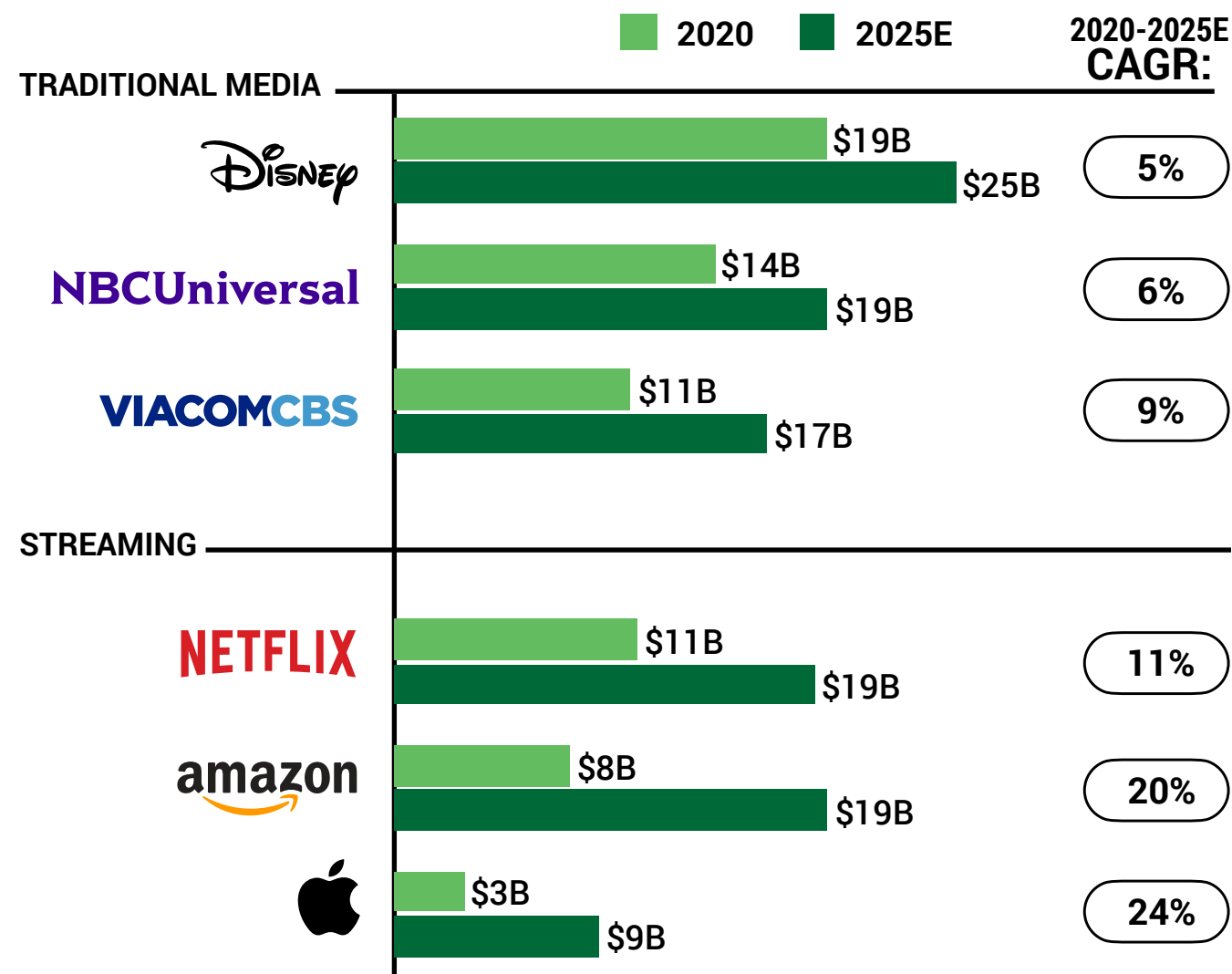
Genre-specific services will contribute to the growing number of paid services per subscriber; paid video streaming service subscribers show considerable interest in subscribing to these niche services

INTEREST IN PURCHASING GENRE-SPECIFIC VIDEO STREAMING SUBSCRIPTIONS, U.S., 2021, % PAID VIDEO STREAMING SUBSCRIPTION OWNERS AGED 18+



Media companies will spend extensively on licensed and original content, including from streaming rivals, to compete in a crowded landscape

OVERALL CONTENT SPEND BY COMPANY¹, GLOBAL, 2020 VS. 2025E, BILLIONS USD



SELECT MAJOR PROGRAMMING INVESTMENTS

ORIGINAL

CURRENT



UPCOMING



LICENSED

LIBRARY PROGRAMMING

IMDb TV



NETFLIX



HBOMAX™



THEATRICAL OUTPUT

NETFLIX²



peacock prime video³



STARZ⁴

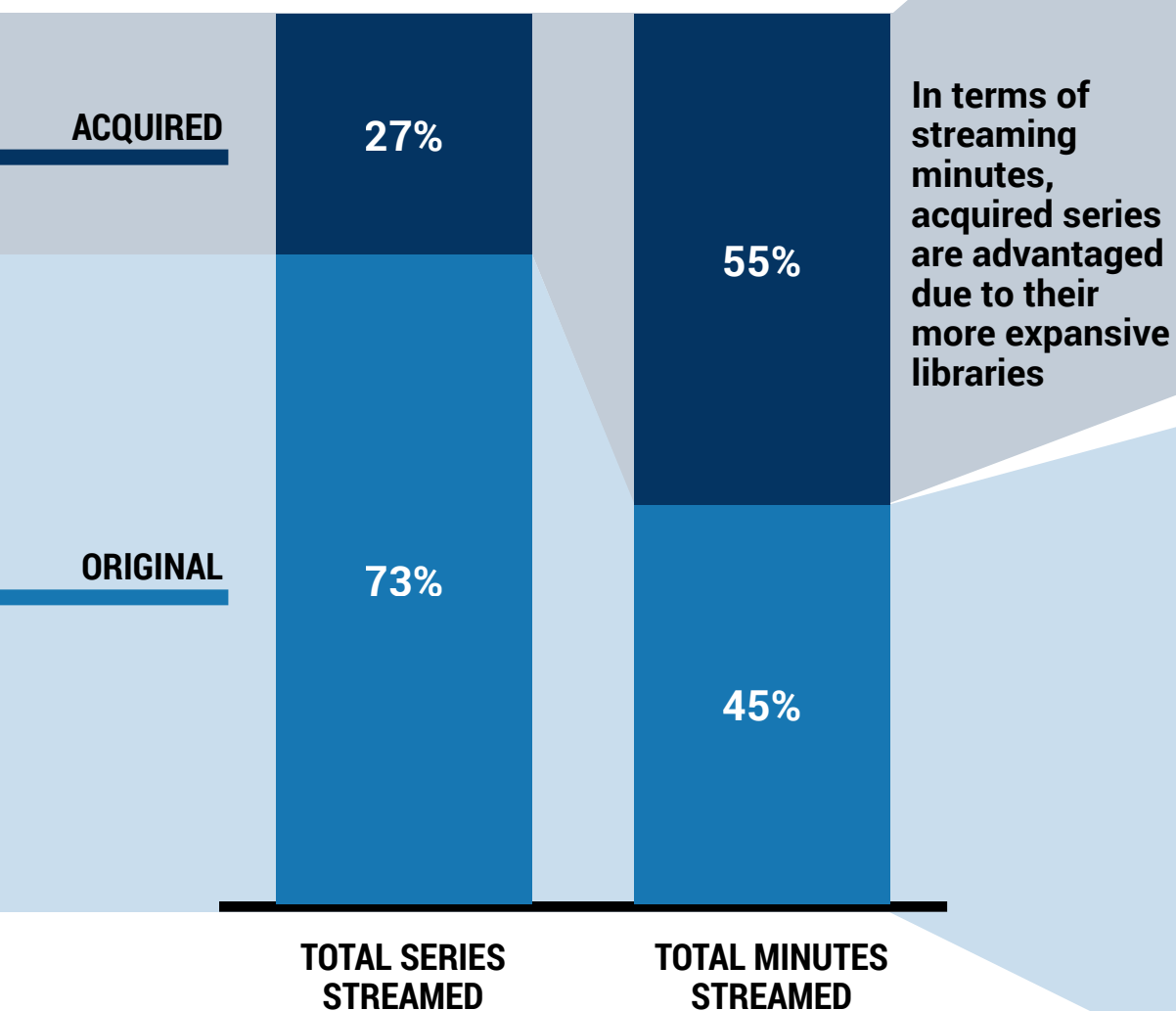


1. Represents P&L programming expense. Excludes sports. 2. Deal is for the pay-one window (i.e. first exclusive release window following a film's theatrical release and transactional purchase sell-through period) beginning with 2022 theatrical releases. 3. Traditional 18-month pay-one window will be shared by Peacock (first and last four months of window) and Amazon Prime Video (middle ten months of window) beginning with 2022 theatrical releases. 4. Deal is for the post-pay-one window beginning with 2022 theatrical releases.

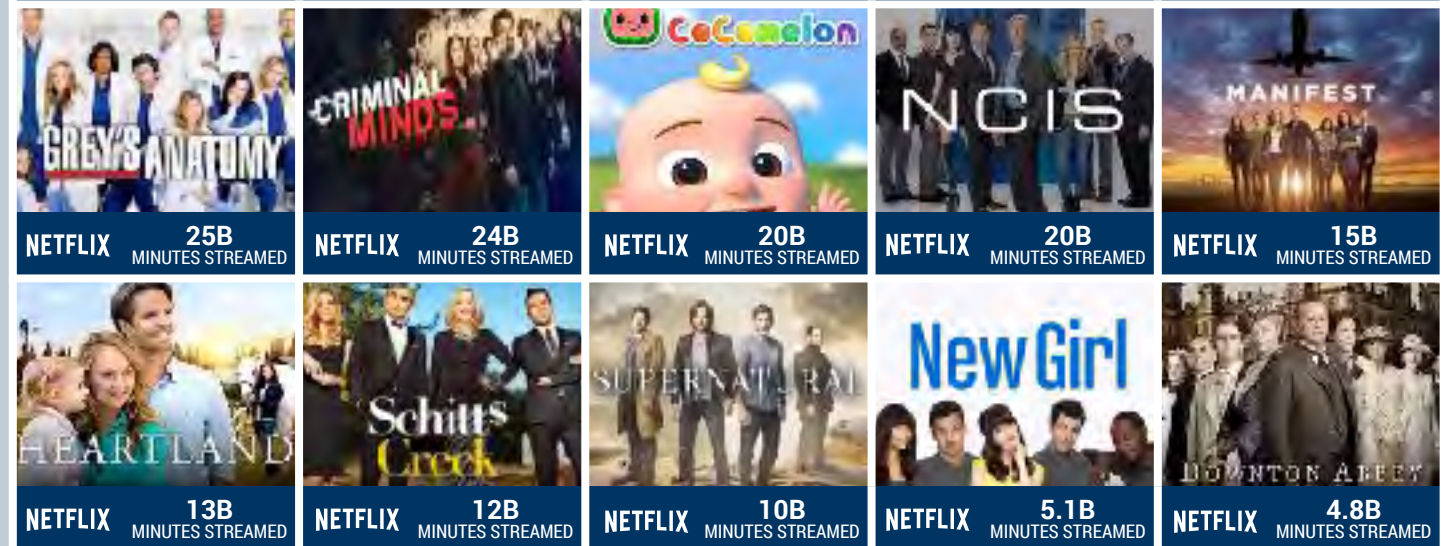
Sources: Activate analysis, Company press releases, Company sites, MoffettNathanson, Wells Fargo

Licensed and original programming are both critical to driving viewing on streaming

ORIGINAL VS. ACQUIRED VIEWING SHARE OF TOP SERIES STREAMED ON SVOD SERVICES¹, U.S., DEC. 2020-AUG. 2021², % TOTAL SERIES/MINUTES



TOP 10 MOST STREAMED ACQUIRED SERIES ON SVOD SERVICES¹, U.S., DEC. 2020-AUG. 2021², BILLIONS MINUTES STREAMED



TOP 10 MOST STREAMED ORIGINAL SERIES ON SVOD SERVICES¹, U.S., DEC. 2020-AUG. 2021², BILLIONS MINUTES STREAMED



1. Based on aggregate viewership of the weekly top 10 most viewed acquired and original series on SVOD services (as determined by Nielsen Streaming Content Ratings). SVOD services measured were Netflix, Disney+, Amazon Prime Video, and Hulu. Reflects series streamed by persons aged 2+. 2. Reflects period spanning from December 28, 2020, to August 29, 2021.
Sources: Activate analysis, Nielsen Streaming Content Ratings

Movie viewing is driven by recently released family-friendly programming; of the top 20 most viewed movies in 2021, 11 are family-friendly, and only 3 were released before 2020

TOP 20 MOST STREAMED FILMS ON SVOD SERVICES¹, U.S., DEC. 2020-AUG. 2021², BILLIONS MINUTES STREAMED

● G or PG movie rating

● PG-13 or higher movie rating



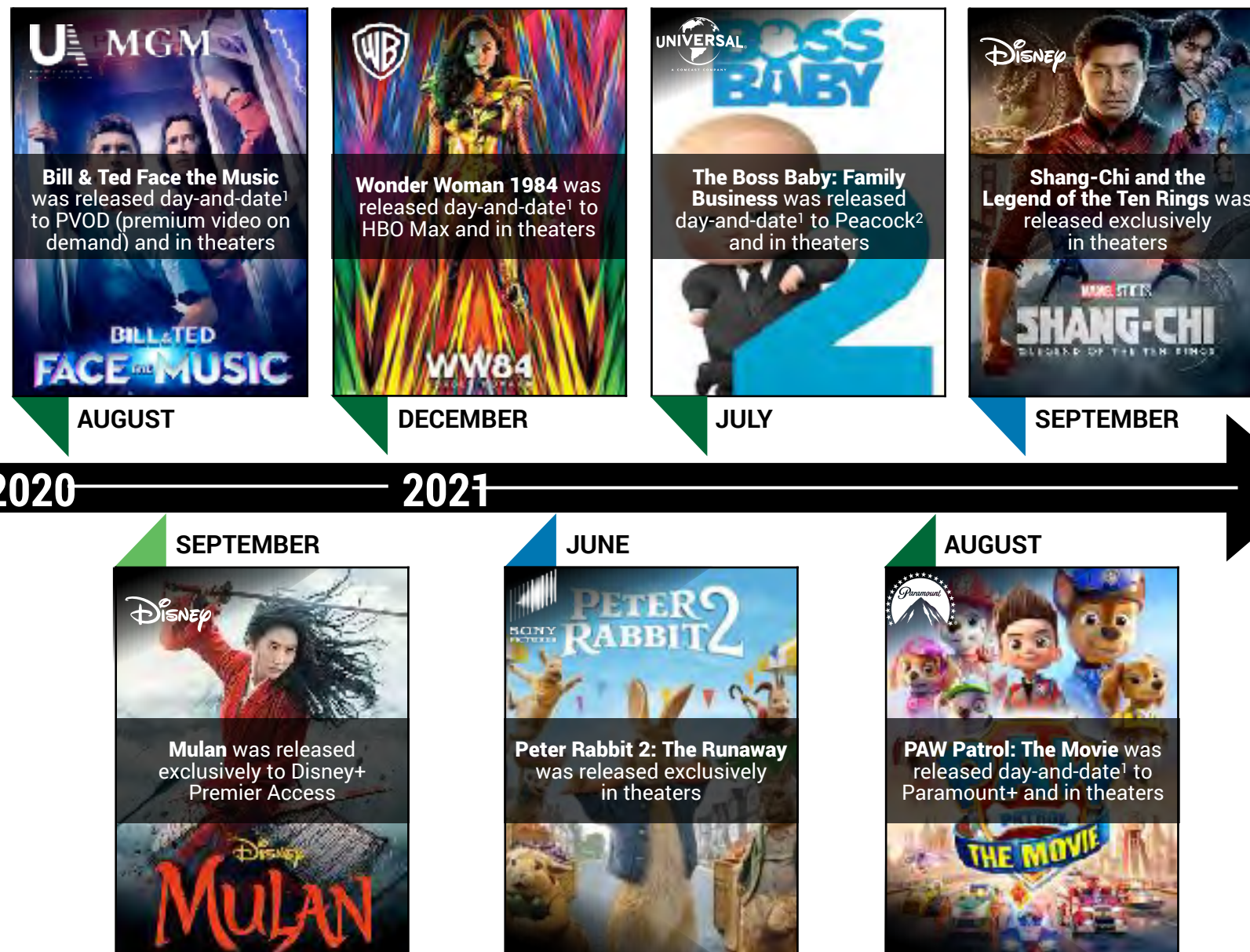
1. Based on aggregate viewership of the weekly top 20 most viewed films on SVOD services (as determined by Nielsen Streaming Content Ratings). SVOD services measured were Netflix, Disney+, Amazon Prime Video, and Hulu. Reflects films streamed by persons aged 2+. 2. Reflects period spanning from December 28, 2020, to August 29, 2021.

Sources: Activate analysis, Nielsen Streaming Content Ratings

COVID-19 restrictions accelerated the simultaneous release of films to streaming and theaters; going forward it is unclear the extent to which this will be sustained

2020-2021 MOVIE RELEASE MODELS FOR SELECT FILMS BY STUDIO

● Online and Theatrical Release ● Online Release Only ● Theatrical Release Only



WARNER BROS. & DISNEY ONLINE STREAMING STRATEGIES

HBOmax

All 2021 Warner Bros. movies are made available to stream through HBO Max for 31 days on the same day as their theatrical releases
Cost: Included with ad-free subscription (\$14.99/month)

HBO MAX WARNER BROS. 2020-2021 PREMIERES:



Disney+

Select Disney movies are made available for purchase through Disney+ Premier Access on the same day as their theatrical releases³
Cost: \$29.99/movie plus price of Disney+ (\$7.99/month)

DISNEY+ PREMIER ACCESS 2020-2021 PREMIERES:



For Disney+ and HBO Max, our research suggests that simultaneous releases expanded the audiences for films, drove streaming service subscriptions, and encouraged subscriber retention

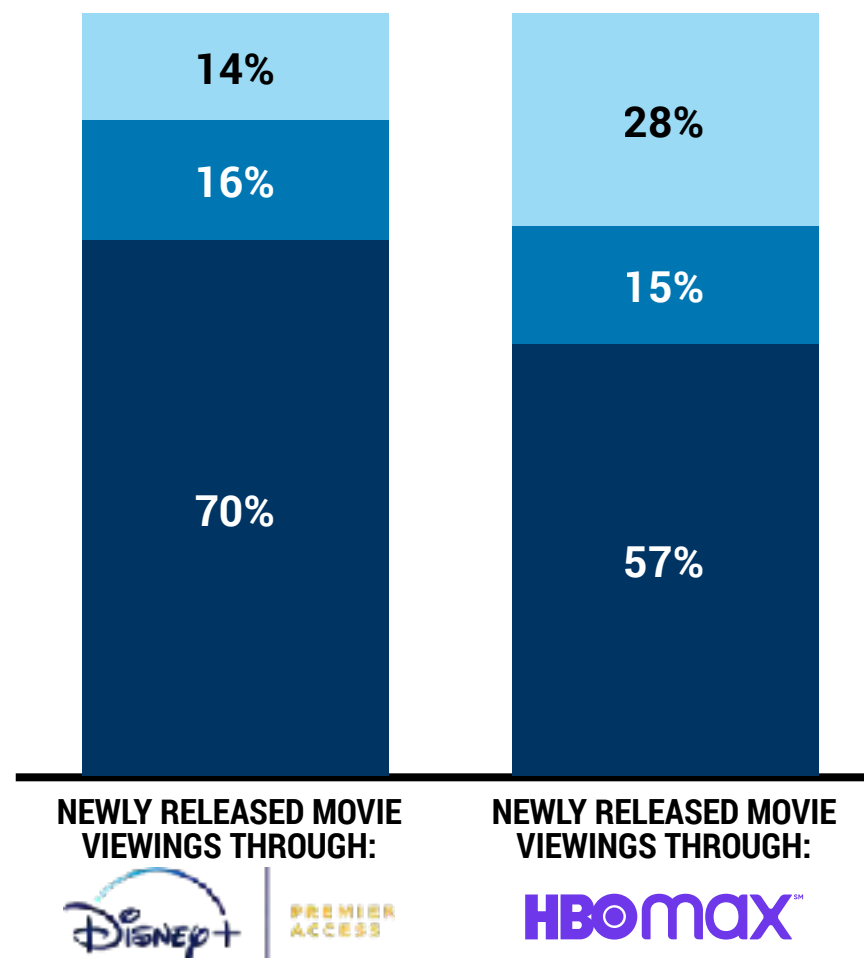
HYPOTHETICAL LIKELIHOOD OF GOING TO A THEATER TO WATCH NEWLY RELEASED MOVIES¹ VIEWED ON DISNEY+ PREMIER ACCESS OR HBO MAX², U.S., 2021, % VIEWINGS OF NEWLY RELEASED MOVIES¹ ON DISNEY+ PREMIER ACCESS OR HBO MAX³

Had the movie not been available through Disney+ Premier Access or HBO Max and assuming personal health due to COVID-19 was not a concern...

Definitely/likely would not have watched in theaters

Not sure if would have watched in theaters

Definitely/likely would have watched in theaters



IMPACT OF ACCESS TO NEWLY RELEASED MOVIES¹ ON DISNEY+ AND HBO MAX SUBSCRIPTIONS², U.S., 2021, % ADULTS AGED 18+ WHO VIEWED A NEWLY RELEASED MOVIE¹ ON DISNEY+ PREMIER ACCESS OR HBO MAX

Of those who watched newly released movies through Disney+ Premier Access or HBO Max, access to these movies influenced...



80%
to subscribe to or keep these paid video streaming subscriptions



HBOmax™

Convenience, rather than COVID-19-related concerns, was the primary driver for consumers to watch new films on streaming instead of in theaters; consumers are split on future preferences regarding theatrical vs. streaming

REASONS FOR WATCHING NEWLY RELEASED MOVIES¹ THROUGH DISNEY+ PREMIER ACCESS OR HBO MAX^{2,3}, U.S., 2021, % VIEWINGS OF NEWLY RELEASED MOVIES¹ ON DISNEY+ PREMIER ACCESS OR HBO MAX⁴

Convenience/comfort reasons



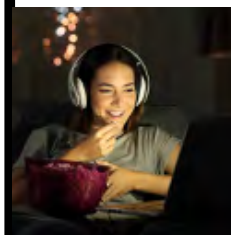
72%

COVID-19-related reasons



36%

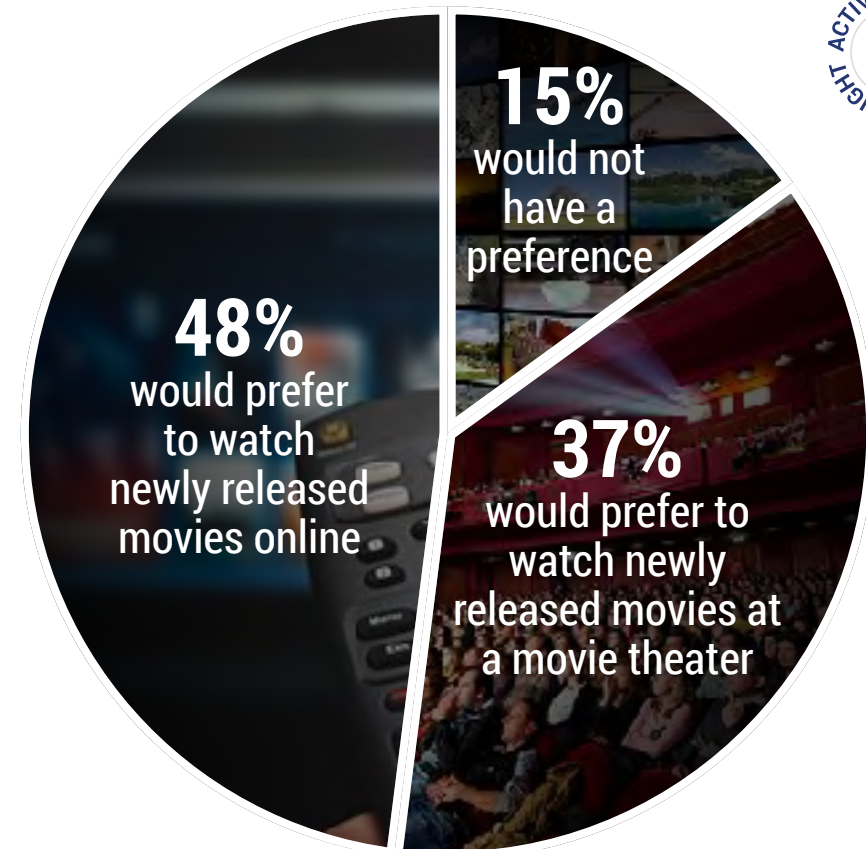
Cost reasons



32%



PREFERENCE FOR WATCHING NEWLY RELEASED MOVIES¹, U.S., 2021, % ADULTS AGED 18+ WHO VIEWED A NEWLY RELEASED MOVIE¹ ON DISNEY+ PREMIER ACCESS OR HBO MAX



To expand their audiences and drive engagement, streamers are bundling their services and expanding across media types

BUNDLING OF OWNED SERVICES

MEDIA COMPANY	BUNDLE
	 <p>Price: \$13.99¹ Unbundled Price: \$21.97¹</p>
	 <p>Price: \$9.99¹ Unbundled Price: \$15.98¹</p>
	 <p>Anticipated due to forthcoming merger</p>

EXPANDING ACROSS MEDIA TYPES

NETFLIX



Stranger Things: 1984 and Stranger Things 3: The Game

In August 2021, Netflix launched Stranger Things-themed mobile Android games to subscribers in Poland



Night School Studio Acquisition



In September 2021, Netflix acquired game developer Night School Studio, indicating further ambitions in gaming

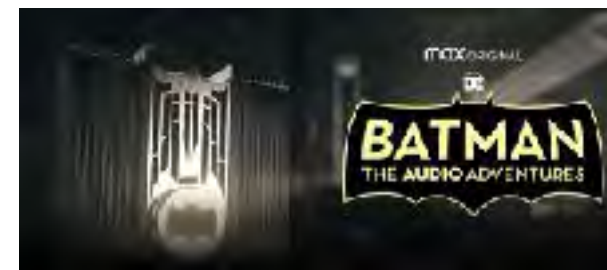
Paid video streaming subscription owners² are **1.3x** more likely to play video games than non-owners

HBOmaxSM



Batman: The Audio Adventures

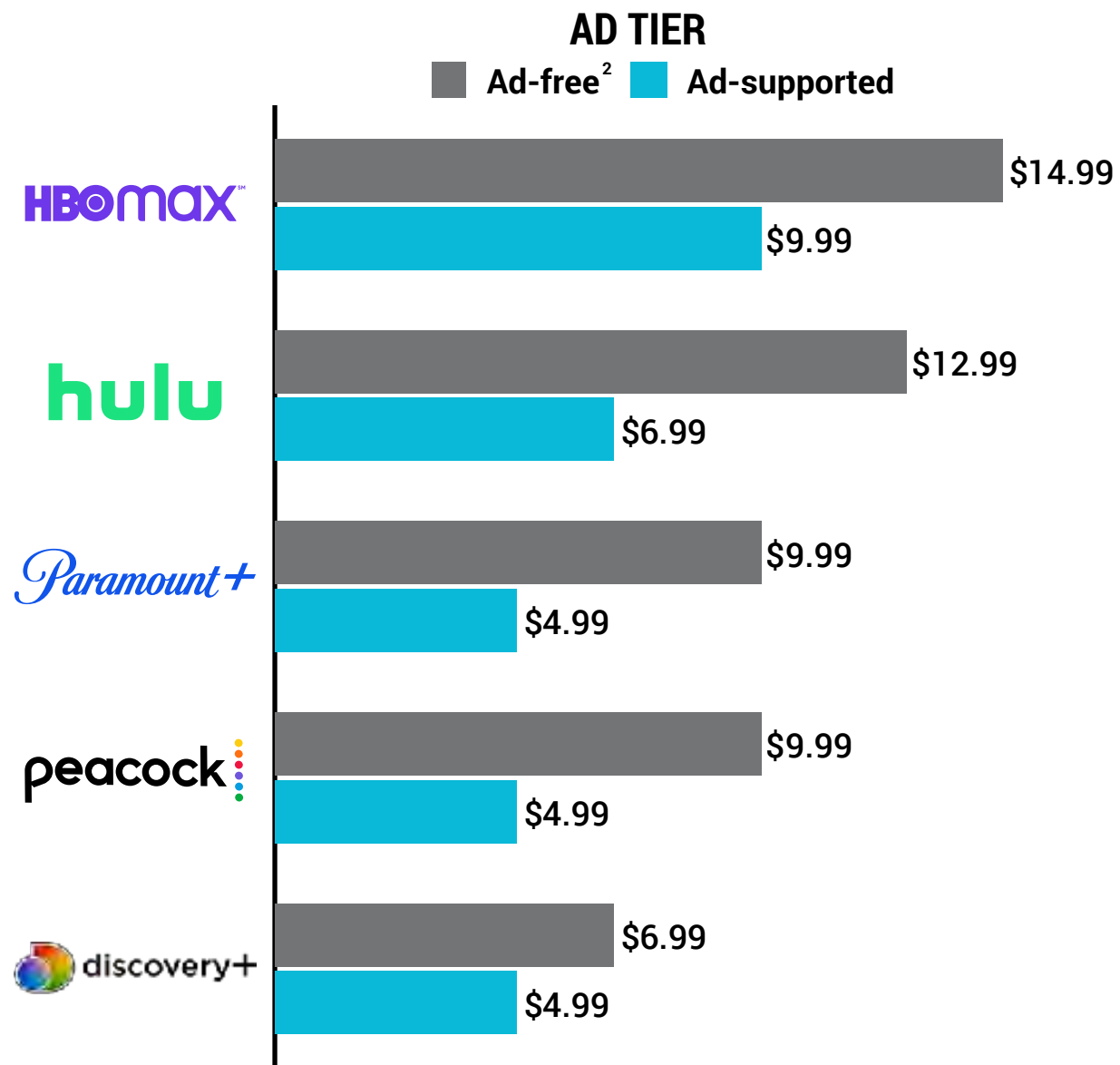
HBO Max launched an original Batman podcast exclusively for HBO Max subscribers



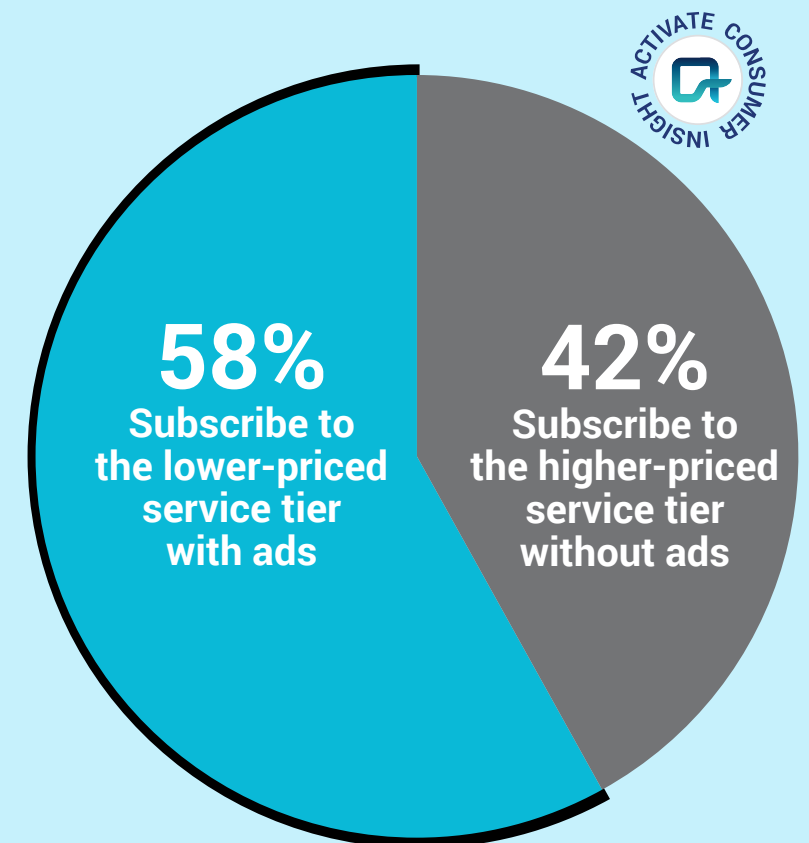
Paid video streaming subscription owners² are **3.5x** more likely to listen to podcasts than non-owners

Streaming services have launched less expensive ad-supported tiers to drive subscriptions, which are favored by consumers

MONTHLY SUBSCRIPTION PRICE OF MAJOR PAID VIDEO STREAMING SUBSCRIPTION SERVICES WITH AD TIERS, U.S., 2021¹, USD

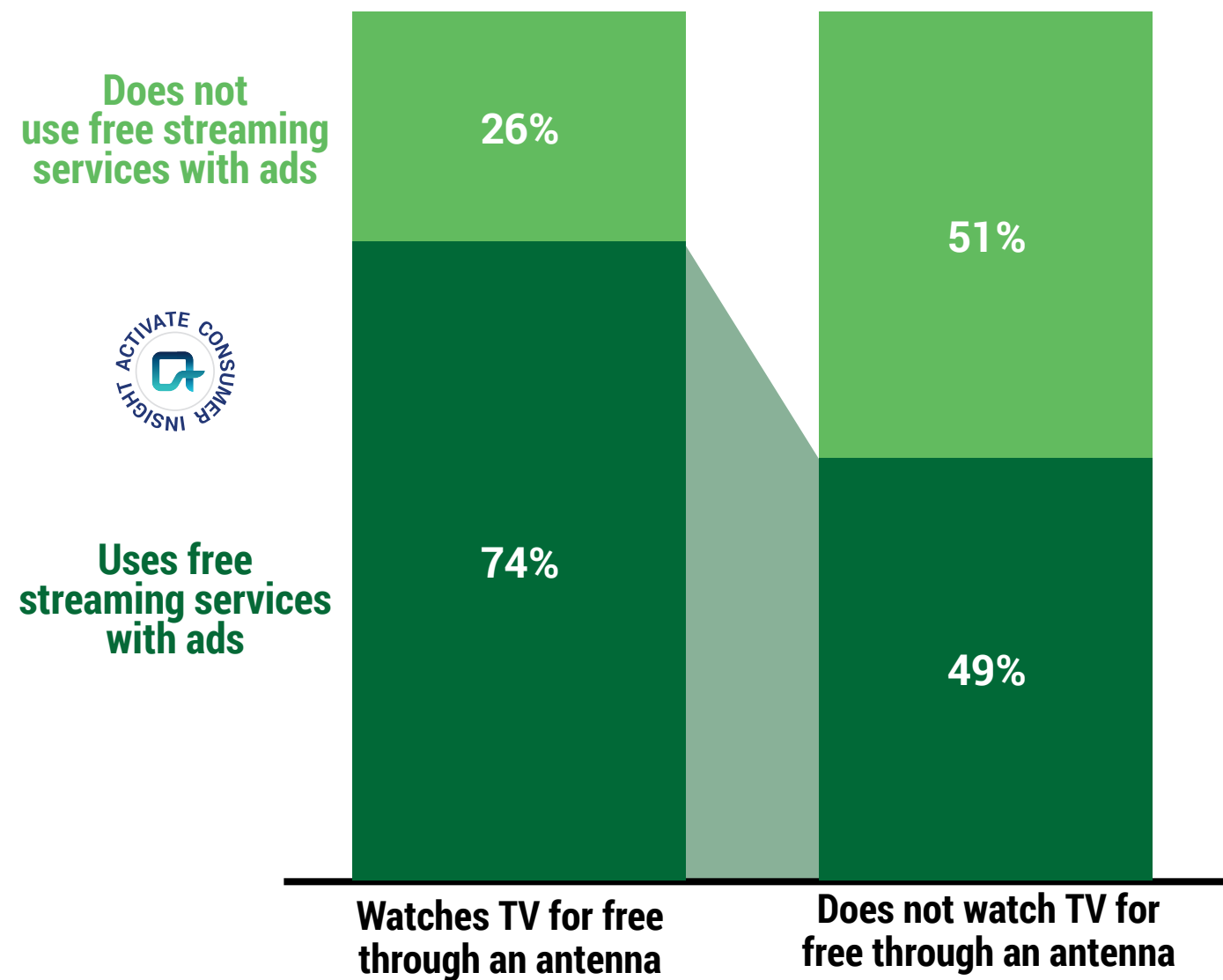


AVERAGE PAID SUBSCRIBER SHARE FOR AD-SUPPORTED TIER VS. AD-FREE TIER³, U.S., 2021, % SELECT PAID VIDEO STREAMING SERVICE SUBSCRIBERS AGED 18+



Ad-supported free streaming has also taken off, particularly for over-the-air viewers (viewers who watch free TV through an antenna), prompting station groups to launch and acquire their own free streaming services

USAGE OF FREE VIDEO STREAMING SERVICES WITH ADS¹
BY FREE TV VIEWERSHIP, U.S., 2021, % VIDEO WATCHERS²



FREE STREAMING SERVICES WITH ADS LAUNCHED
BY LOCAL STATION GROUPS

LOCAL STATION GROUP PARENT COMPANY	FREE STREAMING SERVICE WITH ADS
AMB <small>ALLEN MEDIA - BOSTON</small>	local now
FOX	tubi
gray ³ <small>CONSUMERS GUIDE & BETTER</small>	VUit
HEARST	VERY LOCAL
COMCAST NBCUNIVERSAL	peacock ⁴ xumo
SINCLAIR BROADCAST GROUP	STIR
VIACOMCBS	pluto tv

1. YouTube and Twitch excluded due to emphasis on user-generated video. 2. "Video watchers" are defined as adults 18+ who spend any time watching video. 3. Meredith Corporation was also a launch partner for Very Local, but Gray Television is currently in the process of acquiring Meredith's local TV station group. 4. Peacock has both a paid subscription tier and a free tier with ads.
Sources: Activate analysis, Activate 2021 Consumer Video Research Study (n = 2,014), Company press releases, Company sites

While digital is growing rapidly, most of the dollars in video will remain in traditional television

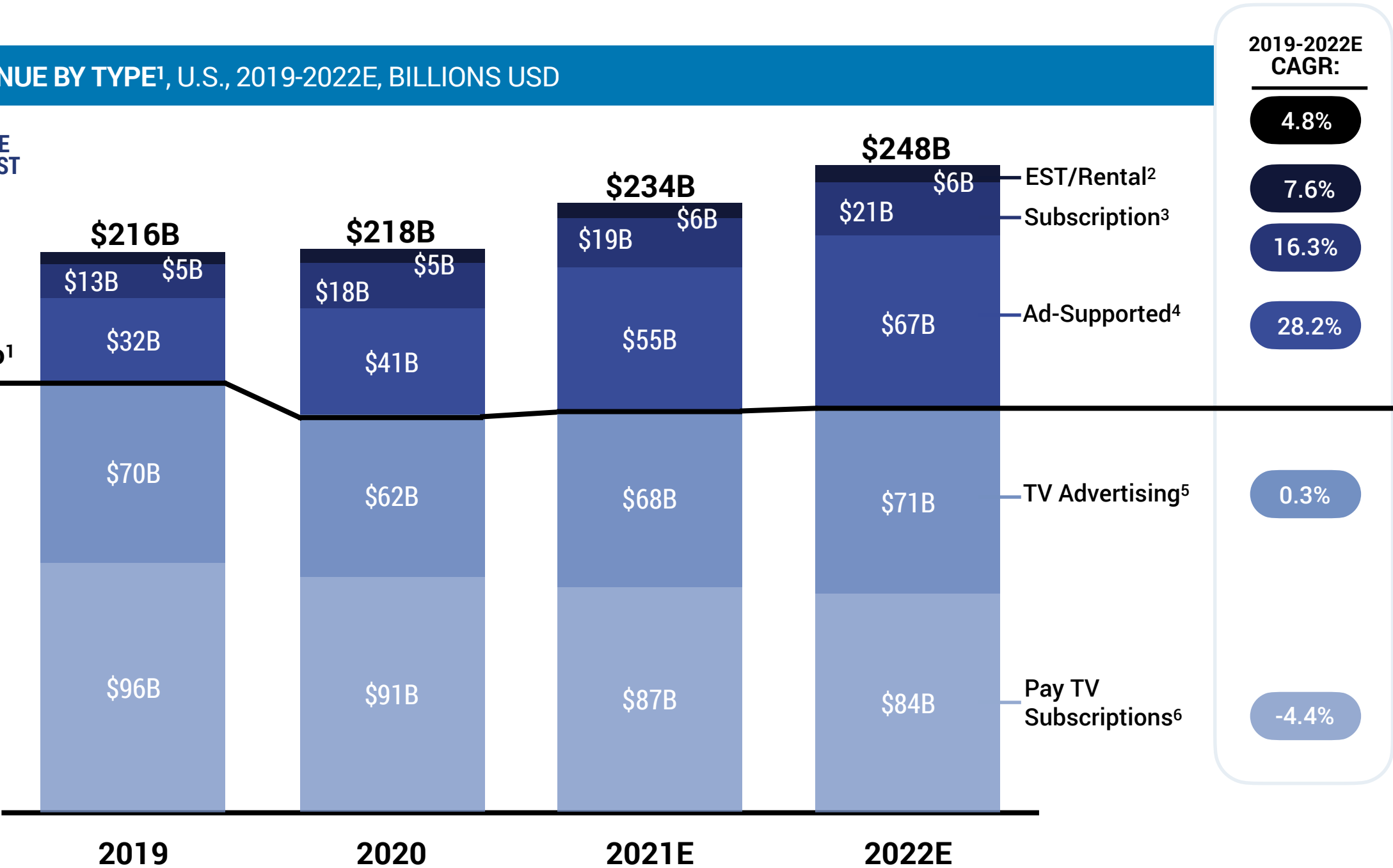
VIDEO REVENUE BY TYPE¹, U.S., 2019-2022E, BILLIONS USD



Digital Video¹



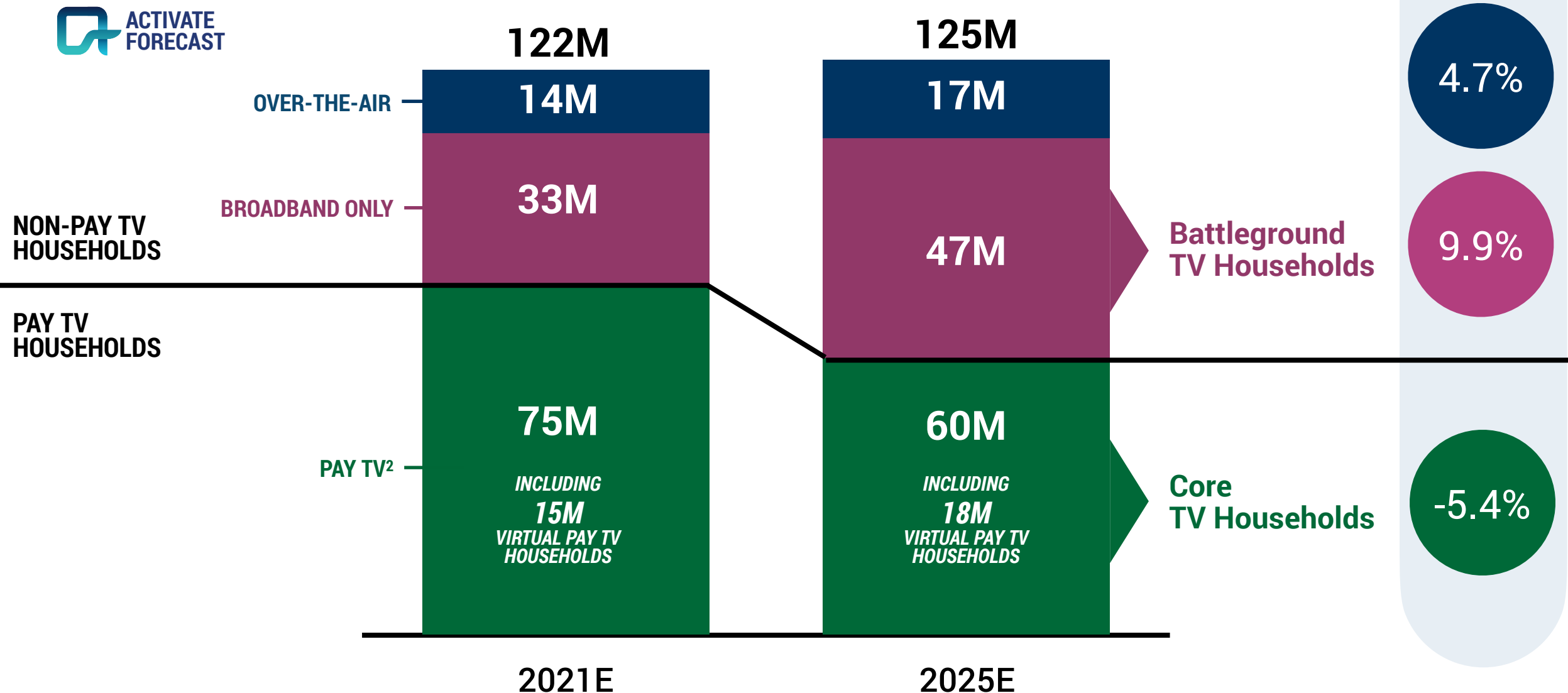
Television²



1. Figures do not sum due to rounding. 2. Includes spend on online video on-demand transactions (e.g. purchases and rentals). 3. Includes spend on paid video streaming subscriptions. 4. Includes in-stream video advertising (e.g. pre-roll, mid-roll, post-roll) on digital video content, including on social networks and out-stream video advertising (e.g. native, in-feed, in-article, in-banner, interstitial). 5. Includes advertising on broadcast TV and Pay TV. 6. Includes revenue from Pay TV subscriptions. Sources: Activate analysis, BMO Capital Markets, eMarketer, PricewaterhouseCoopers

Pay TV households will continue to decrease, reaching 60M by 2025

TELEVISION HOUSEHOLD BREAKDOWN¹, U.S., 2021E VS. 2025E, MILLIONS HOUSEHOLDS



1. Figures do not sum due to rounding. 2. "Pay TV" includes traditional Pay TV (i.e. TV delivered through a set-top box) and virtual Pay TV (i.e. TV delivered through the internet without a set-top box).

Sources: Activate analysis, Activate 2016 Consumer Technology & Media Research Study (n = 4,000), Activate 2017 Consumer Technology & Media Research Study (n = 4,047), Activate 2018 Consumer Technology & Media Research Study (n = 4,000), Activate 2019 Consumer Technology & Media Research Study (n = 4,006), Activate 2020 Consumer Technology & Media Research Study (n = 4,003), Activate 2021 Consumer Technology & Media Research Study (n = 4,018), Activate 2021 Consumer Video Research Study (n = 2,014), eMarketer, MoffettNathanson, Nielsen, S&P Global, U.S. Census Bureau

The traditional cable bundle and OTT streaming will continue to converge: video streaming services are increasingly adding news and sports, two large audience drivers for the traditional cable bundle



SELECT MAJOR SPORTS AND NEWS INITIATIVES ACROSS VIDEO STREAMING SERVICES

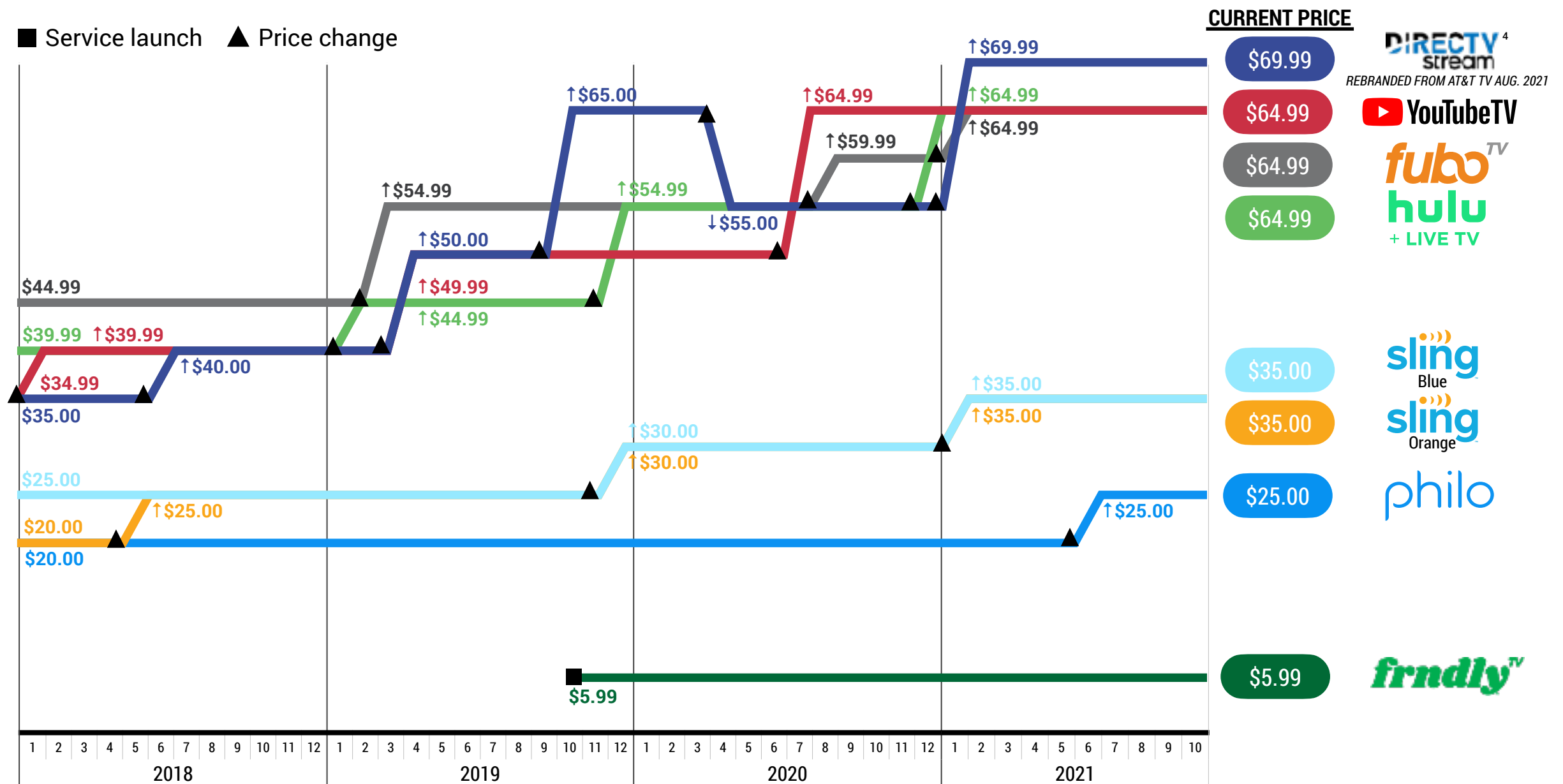
PREMIUM SPORTS RIGHTS DEALS WITH PAID VIDEO STREAMING SUBSCRIPTION SERVICES	<p>11-year exclusive deal for "Thursday Night Football," which will stream on Amazon Prime Video</p>	<p>88% of sports watchers³ own at least one paid video streaming subscription</p>
	<p>7-year deal for NHL games, allowing for up to 72 regular-season games per season to stream on HBO Max</p>	
	<p>U.S. rights until 2024 for exclusive coverage of AFC club competitions and national team matches; around 300 matches per year will stream on Paramount+</p>	
FREE AD-SUPPORTED STREAMING NEWS CHANNELS		<p>59% of news watchers⁴ use at least one free video streaming service with ads⁵</p>
NEWS-FOCUSED PAID VIDEO STREAMING SUBSCRIPTION SERVICES	<p>Launching 2022</p>	<p>34% of news watchers⁴ are extremely or very interested in purchasing a subscription to a news-specific video streaming service</p>

1. "Pay TV subscribers" are defined as adults aged 18+ who own a traditional and/or virtual Pay TV subscription. 2. Consumers were asked to select up to three top reasons for owning each type (traditional and/or virtual) of Pay TV. 3. "Sports watchers" are defined as adults aged 18+ who watch sports programming (including live sports games/events and sports talk shows). 4. "News watchers" are defined as adults aged 18+ who watch news programming (including live news and political talk shows). 5. Does not include YouTube and Twitch due to emphasis on user-generated video. 6. Fox Nation provides entertainment content in addition to news programming.

Sources: Activate analysis, Activate 2021 Consumer Video Research Study (n = 2,014), Company press releases, Company sites

For the most part, Virtual Pay TV services are no longer low cost alternatives to cable and satellite, as Virtual Pay TV providers have steeply increased prices since their initial launches

MONTHLY SUBSCRIPTION PRICE¹ OF VIRTUAL PAY TV SERVICES², U.S., JAN. 2018-OCT. 2021³, USD



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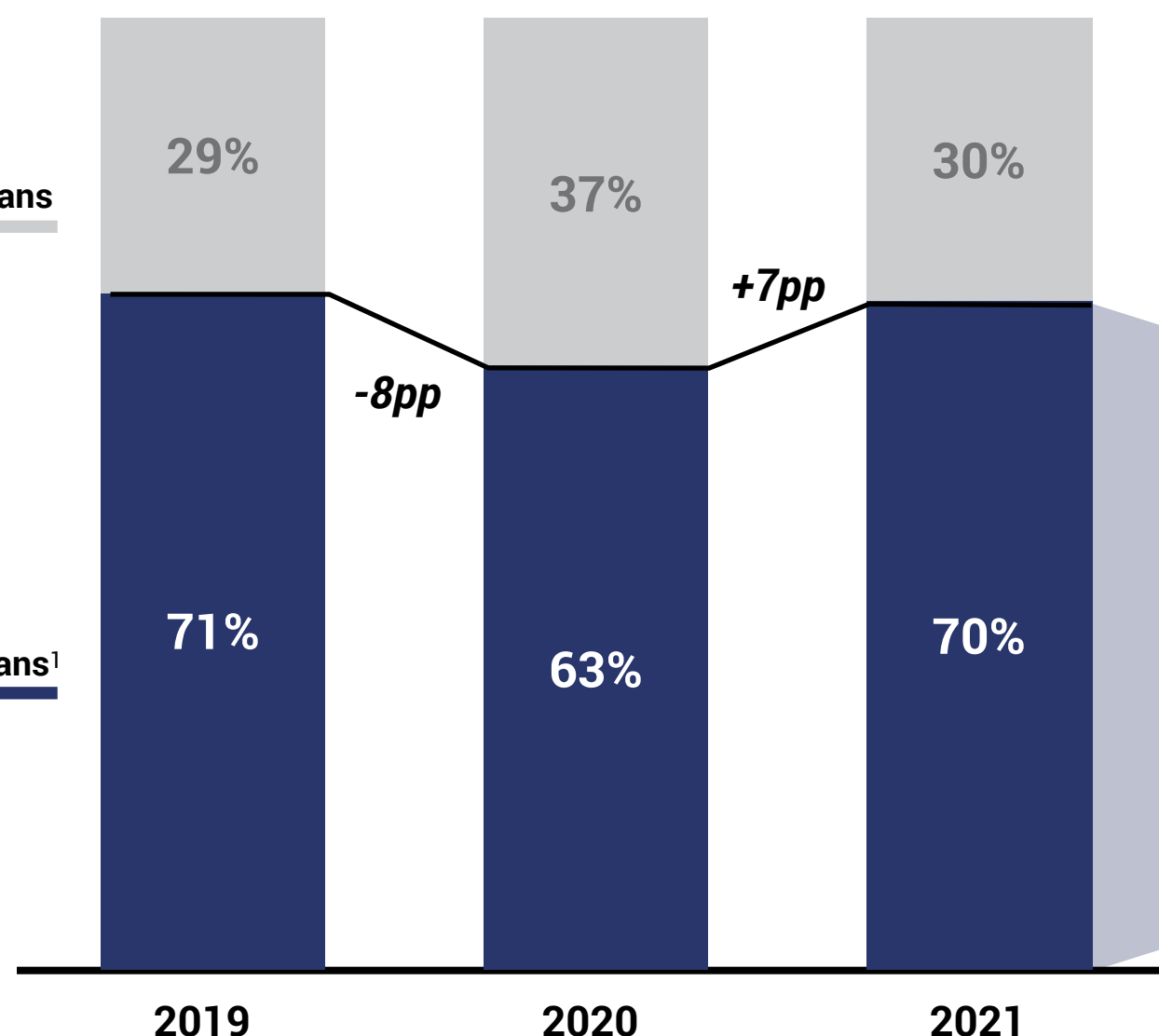
Fans are coming back to sports following the dip during the pandemic

SPORTS FANS VS. NON-SPORTS FANS, U.S., 2019-2021, % ADULTS AGED 18+



Non-Sports Fans

Sports Fans¹



RETURN TO MORE REGULAR SPORTS SCHEDULES
COVID-19 caused irregular/shortened schedules; in 2021, most have returned to regular programming

There are
180M
sports fans
in the U.S.

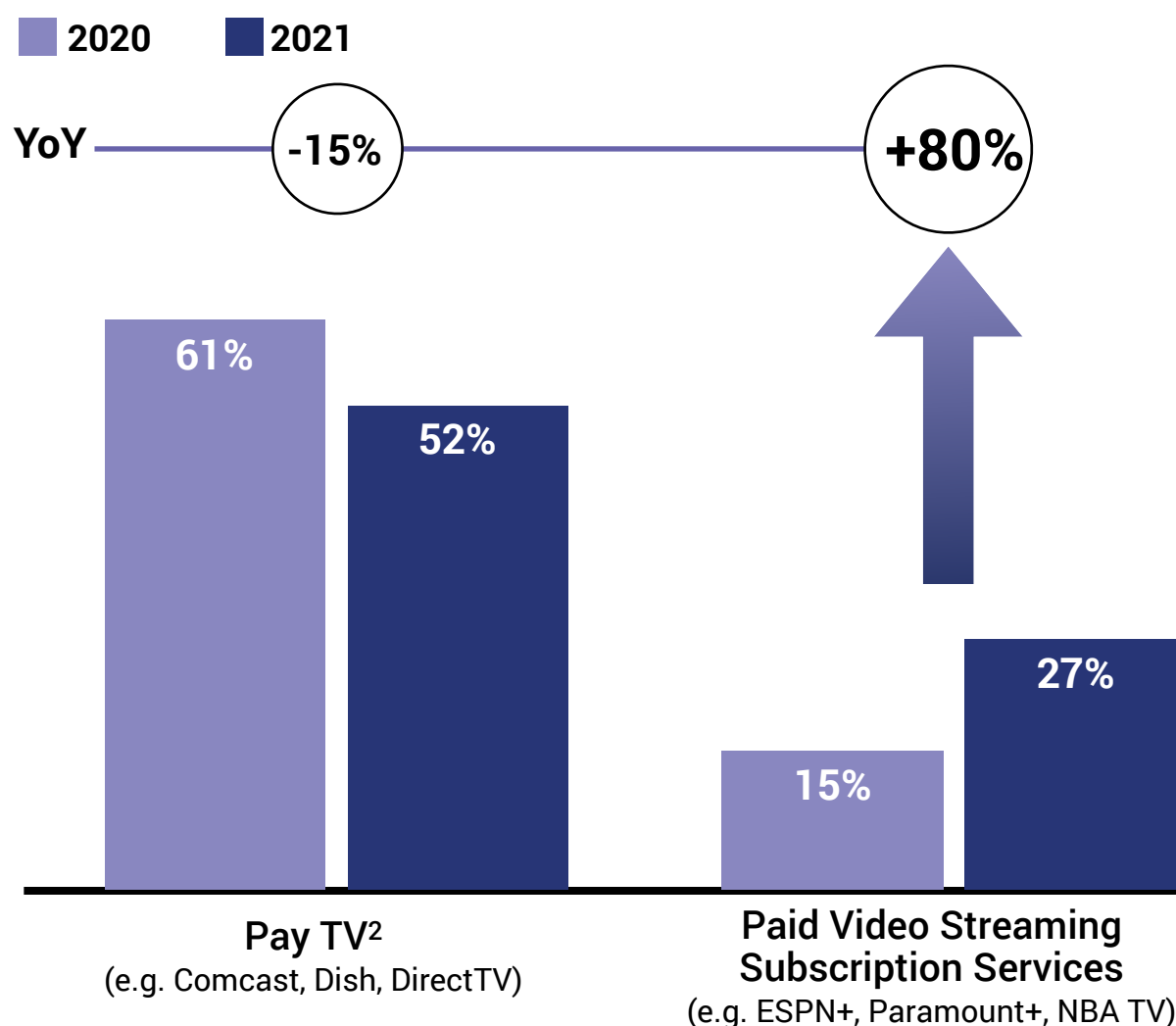


1. "Sports fans" are defined as adults aged 18+ who followed at least one sport in the last 12 months (e.g. attending live games in person, watching live games or game highlights, reading articles or statistics).

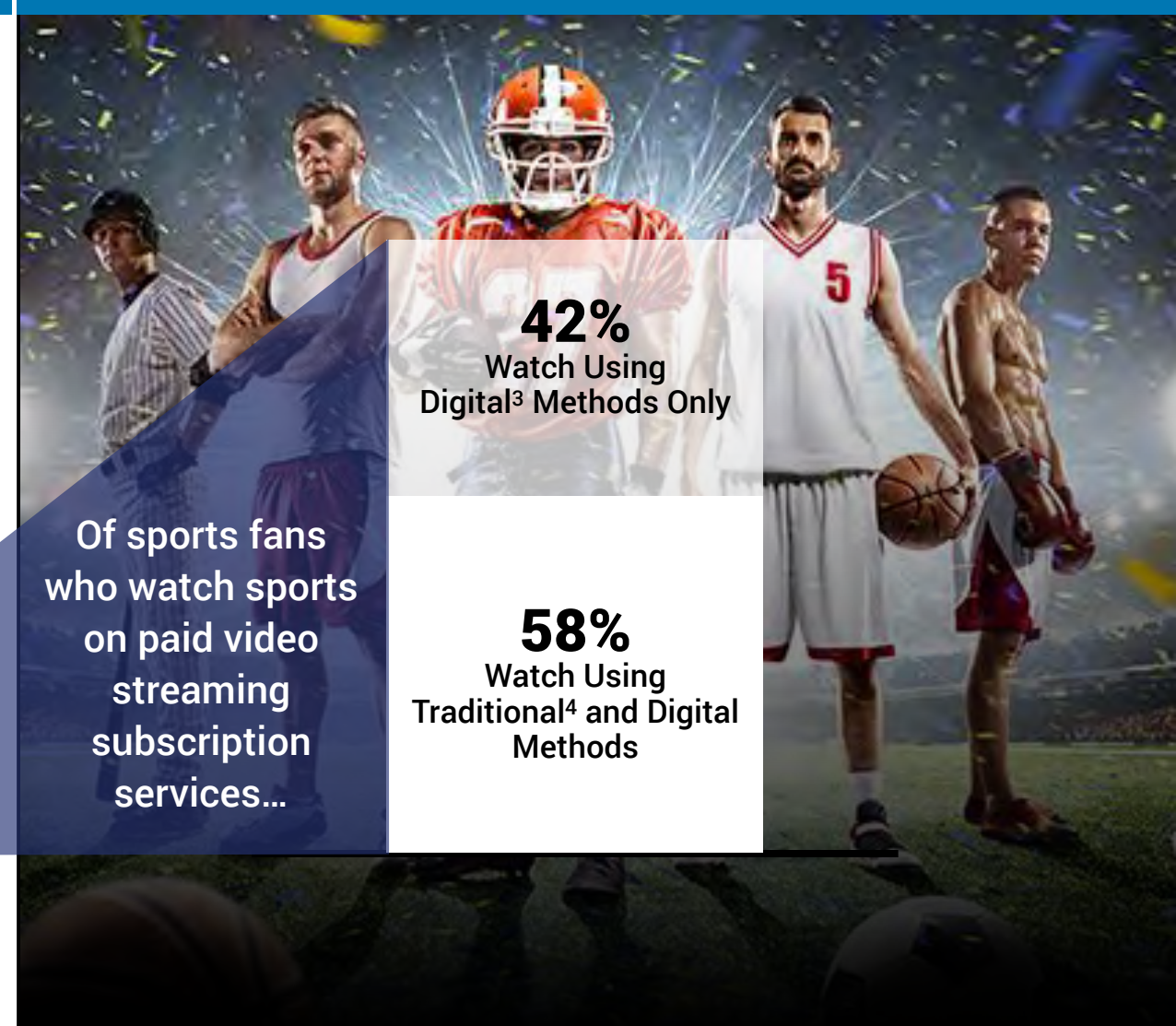
Sources: Activate analysis, Activate 2019 Consumer Technology & Media Research Study (n = 4,006), Activate 2020 Consumer Technology & Media Research Study (n = 4,003), Activate 2021 Consumer Technology & Media Research Study (n = 4,018), U.S. Census Bureau

More fans are using streaming services to watch sports, although Pay TV continues to account for the majority of viewership

LIVE SPORTS VIEWERSHIP BY VIEWING METHOD, U.S., 2020 VS. 2021, % SPORTS FANS¹ WHO WATCH SPORTS
























DIGITAL³ VS. TRADITIONAL⁴ VIEWING METHODS, U.S., 2021, % SPORTS FANS¹ WHO WATCHED SPORTS THROUGH A PAID VIDEO STREAMING SUBSCRIPTION SERVICE



1. "Sports fans" are defined as adults aged 18+ who followed at least one sport in the last 12 months (e.g. attending live games in person, watching live games or game highlights, reading articles or statistics). 2. "Pay TV" includes traditional Pay TV and virtual Pay TV. 3. "Digital viewing methods" include paid digital streaming services, free video streaming services with ads, and social media. 4. "Traditional viewing methods" include Pay TV and over-the-air viewing.
Sources: Activate analysis, Activate 2021 Consumer Technology & Media Research Study (n = 4,018)

New rights deals for 2022-23 will bring more live games to streaming; growing availability of games across sports will drive the continued shift to streaming

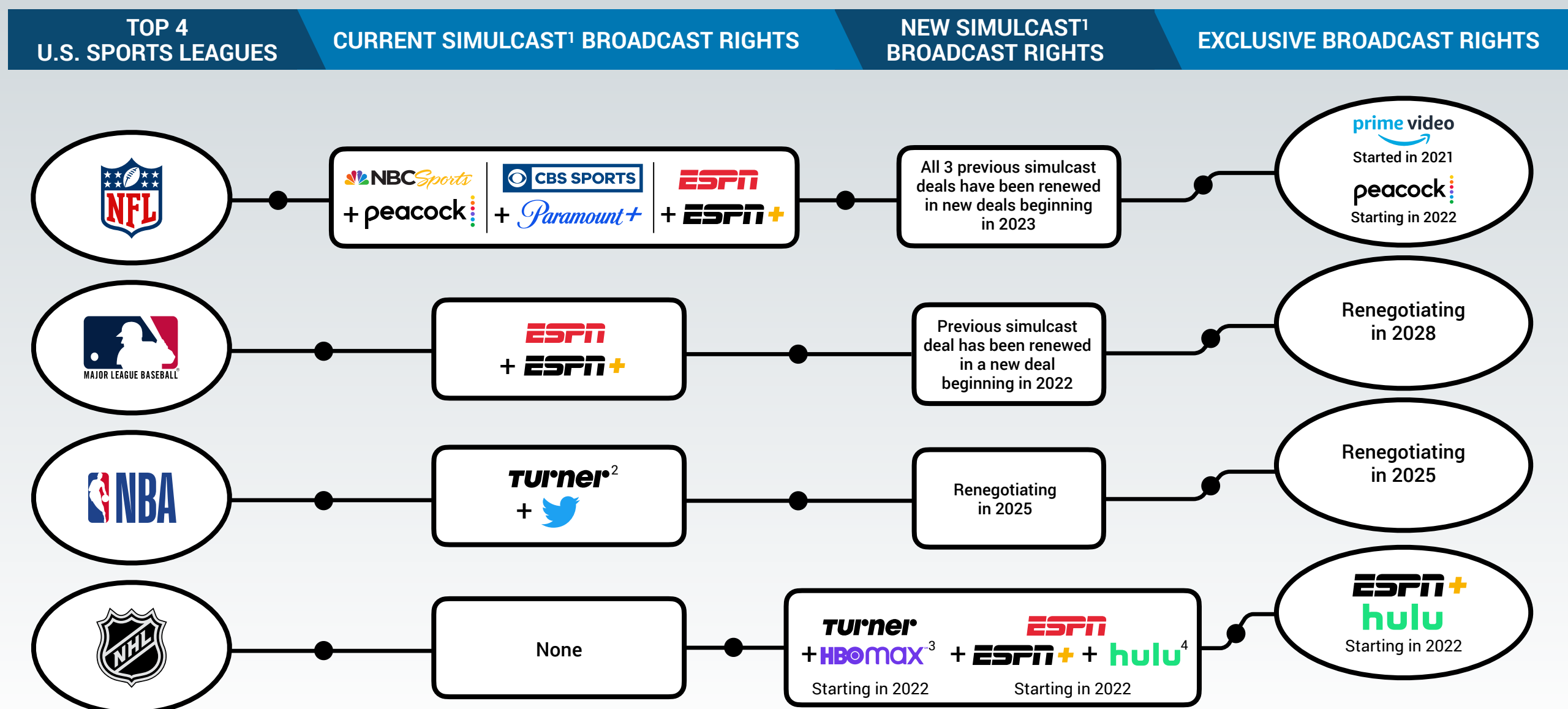
KEY CONTENT RIGHTS¹ TIMELINES OF LEGACY TOP 4 SPORTS LEAGUES AND ANNUAL VALUE BY SPORT, U.S., 2019-2034, BILLIONS USD

					2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	ANNUAL VALUE	
		<i>ESPN</i>							<i>ESPN</i>  <i>ESPN+</i>												\$2.7B	
		prime video							prime video												\$1.0B	
																					\$0.7B	
		 <i>Paramount+</i>							 <i>Paramount+</i>												\$2.1B	
																					\$2.3B	
		 <i>peacock</i>							 <i>peacock</i>												\$2.0B	
	<i>ESPN</i> <i>ESPN+</i>							<i>ESPN</i> <i>ESPN+</i>														\$0.6B
	<i>Turner</i>							<i>Turner</i>														\$0.5B
																						\$0.7B
	<i>ESPN</i> 																					\$1.4B
	<i>Turner</i>																					\$1.2B
	 <i>NBCSports</i>																					\$0.2B
								<i>ESPN</i>  <i>ESPN+</i> hulu													\$0.4B	
								<i>Turner</i> HBOmax ²													\$0.2B	

1. Rights deals included in chart include regular-season only and exclude league-owned channels (e.g. NBA league pass, MLB.TV). As of Oct. 2021. 2. Turner deal includes the option to broadcast through HBOMax but has yet to schedule live games. Sources: Activate analysis, AXIOS, CNBC, Company sites, Engadget, NY Post, SportsProMedia, The Streamable, USA Today, The Verge

The top sports leagues already simulcast their linear broadcasts on streaming services; going forward, we expect more competition for streaming exclusives

SELECT U.S. DIGITAL BROADCAST RIGHTS DEALS AND PARTNERSHIPS OF LEGACY TOP 4 SPORTS LEAGUES



1. "Simulcast" is defined as a simultaneous transmission of the same program on two or more platforms. 2. Player-focused camera stream during the second half. 3. Turner deal includes the option to broadcast through HBO Max but has yet to schedule live games. 4. Hulu has partnered with ESPN to make live sports and events on ESPN+ available to watch on the Hulu app.

Sources: Activate analysis, AXIOS, CNBC, Company sites, SportsProMedia, USA Today, The Verge

In the case of the NFL, while a growing number of live games are now available for streaming, a Pay TV package, supplemented by an NFL Sunday Ticket subscription, provides the broadest access to all games

REGULAR SEASON BROADCAST ACCESSIBILITY BY NFL GAME TIME SLOT, U.S., 2021-2022 SEASON

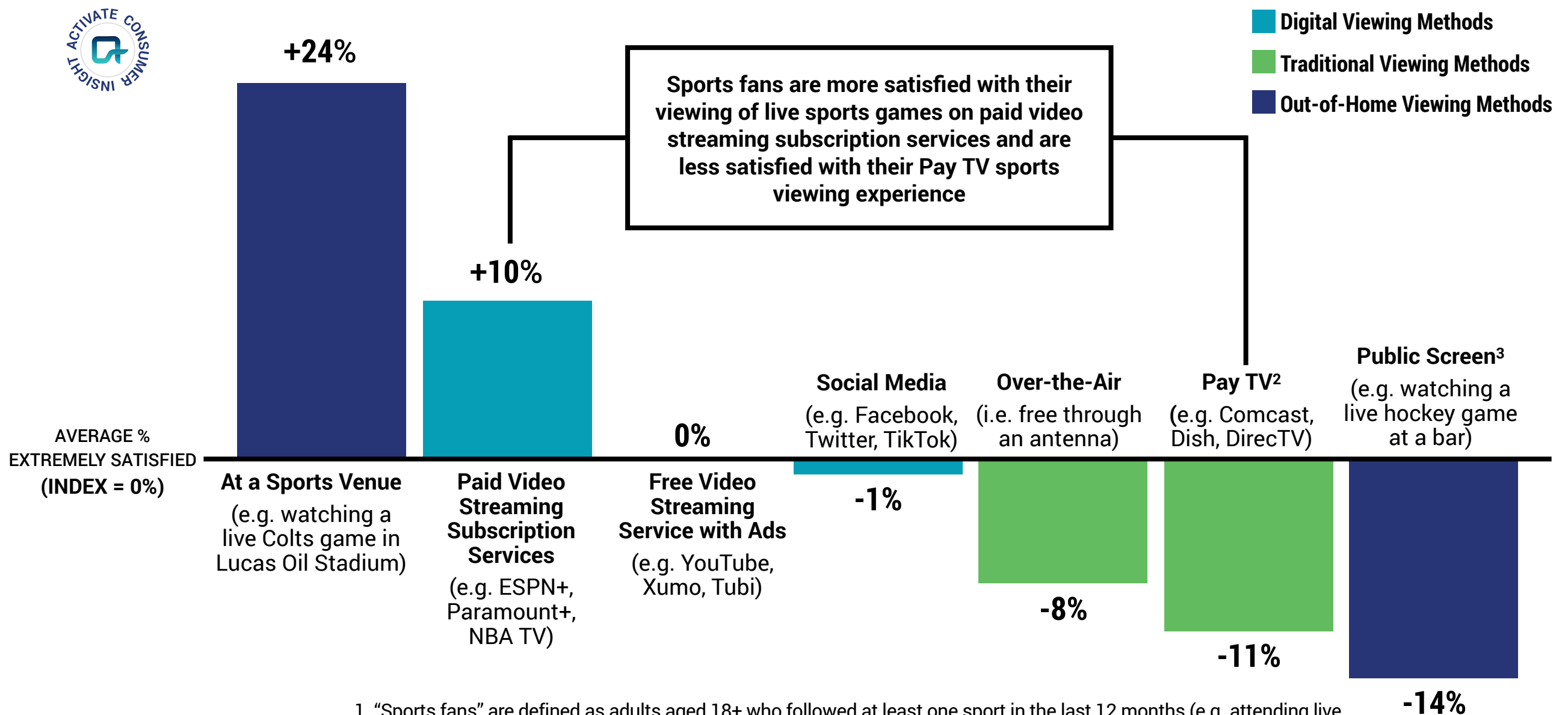
TYPE OF GAME	IN-MARKET ¹ / OUT-OF-MARKET ²	OVER-THE-AIR	PAY TV ³ + SUNDAY TICKET ⁴	PAY TV SUNDAY TICKET	PAID VIDEO STREAMING SUBSCRIPTION SERVICES
	In-Market	✓	✓	✓ N/A	 (Limited number of games)
	Out-of-Market	✗	✓	✓ N/A	
	In-Market	✓	✓	✓ N/A	
	Out-of-Market	✗	✓	✓ N/A	
	In-Market	✓	✓	✓ ✗	
	Out-of-Market	✗	✓	✗ ✓	
	In-Market	✓	✓	✓ ✗	✗
	Out-of-Market	✗	✓	✗ ✓	
	In-Market	✓	✓	✓ N/A	 (Premium or Premium Plus Plans)
	Out-of-Market	✗	✓	✓ N/A	

Pay TV + Sunday Ticket is the only way football fans can watch every NFL game

1. "In-Market" is available within the designated broadcast region of an individual's physical location. 2. "Out-of-Market" is available outside of the designated broadcast region of an individual's physical location. 3. "Pay TV" includes traditional Pay TV and virtual Pay TV that include a standard sports package. 4. Sunday Ticket is an out-of-market sports package provided through DirecTV that broadcasts NFL regular season games that are unavailable on local affiliates.
Sources: Activate analysis, Company sites

Streaming services deliver experiences that are winning over fans; we expect streaming to become consumers' go-to viewing method in the future as live games become available on streaming services across sports

FAN SATISFACTION BY EXPERIENCE TYPE, U.S., 2021,
% SPORTS FANS¹ WHO USE EACH VIEWING METHOD INDEXED TO AVERAGE SATISFACTION ACROSS VIEWING METHODS



1. "Sports fans" are defined as adults aged 18+ who followed at least one sport in the last 12 months (e.g. attending live games in person, watching live games or game highlights, reading articles or statistics). 2. "Pay TV" includes traditional Pay TV and virtual Pay TV. 3. "Public screen" is defined as a screen within a public setting outside of the home that is not at a sports venue.

Sources: Activate analysis, Activate 2021 Consumer Technology & Media Research Study (n = 4,018)

Streaming services are hubs that serve all consumer needs for the full set of sports programming types; more services will soon follow suit, significantly expanding sports streaming offerings

EMERGENCE OF DIGITAL STREAMING SERVICES IN LIVE AND NON-LIVE SPORTS PROGRAMMING

ESPN+ is leading the way to become a full-service streaming sports hub

VARIETY OF SPORTS, LEAGUES, AND CONFERENCES

ESPN+ subscribers can access a **wide variety of sports programming** across many top sports leagues (e.g. NFL, MLB, NHL) in addition to more niche sports (e.g. Cricket, MMA, Tennis)

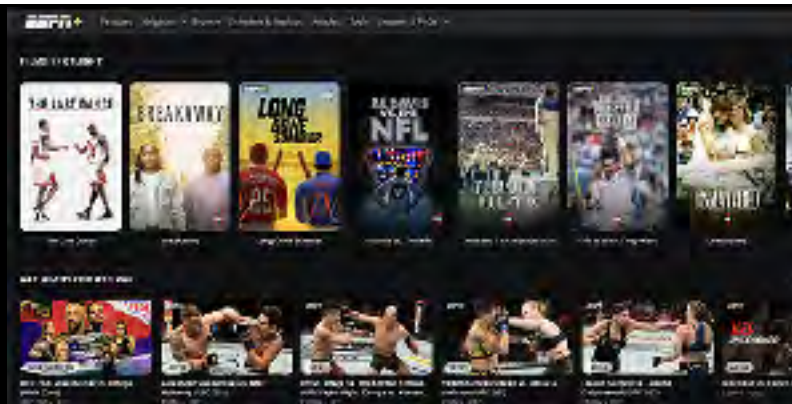


Subscribers can browse a comprehensive list of **live game broadcasts and streams of game replays**

STREAMS OF LIVE GAMES & GAME REPLAYS

LARGE LIBRARY OF SPORTS CONTENT AND MEDIA

ESPN+ provides its subscribers with access to a **large selection of sports-related content** (e.g. sports movies and documentaries) in addition to game broadcasts



NEW ENTRANTS

In recent broadcast rights deal negotiations, many streaming services have gained rights to exclusive and simulcast broadcasts of live games and developed additional sports-adjacent programming available to paying subscribers

<div>2021</div> <div>prime video</div> <div></div>	<div>2023</div> <div>Paramount+</div> <div></div>	<div>2022</div> <div>hulu</div> <div></div>
<div>2023</div> <div>peacock</div> <div></div>	<div>2022</div> <div>HBOMAX</div> <div></div>	

COULD BE NEXT...

As broadcast rights are up for renegotiation, other digital platforms are looking to get involved and add **broadcasts of live sports games to their offering**



Streaming services and social platforms will expand their deployment of new technology innovations to deliver interactive experiences and drive fan engagement











IMPORTANCE OF INNOVATIVE EXPERIENCE FEATURES AND CONTENT, U.S., 2021, % SPORTS FANS¹



CONSIDER FEATURE OR CONTENT EXTREMELY OR VERY IMPORTANT

50%	50%	38%	32%	31%
SINGLE-PLAYER-FOCUSED VIEWING ANGLES	ALTERNATE BROADCASTS WITH DIFFERENTIATED FEATURES AND/OR EFFECTS	INTERACTIVE ANALYTICAL FEATURES	SOCIAL CHAT	BETTING-THEMED ALTERNATE BROADCASTS







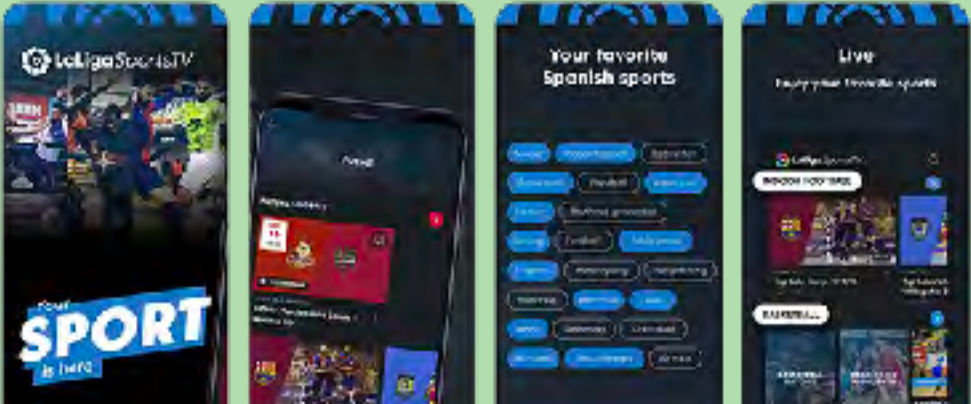
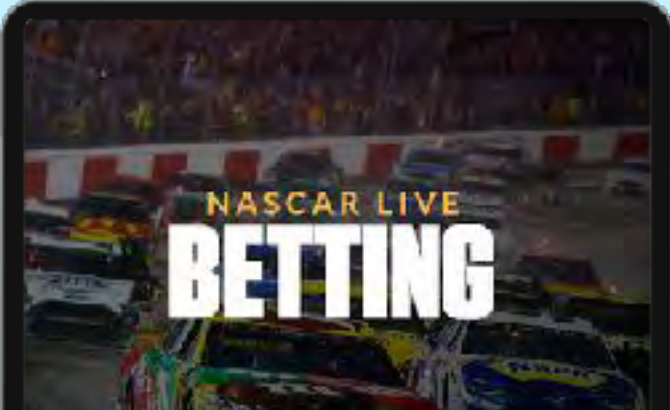

EXAMPLES

 	 	 	 	 
During select NBA games on TNT, Twitter broadcasts an alternate stream where fans vote on which player to follow – the stream focuses on that single player , tracking him around the court	Nickelodeon’s alternate “Slime Time” broadcasts of 2021 NFL games showcased special effects that target younger audiences, such as slime cannons and Nickelodeon cartoon character references	Amazon Prime Video’s extended X-Ray feature during Thursday Night Football games enables viewers to access AWS-powered Next-Gen stats , on-demand replays , and in-depth player analyses	Amazon Prime Video broadcasts select Thursday Night Football games on Twitch, where users are able to experiment with beta-stage in-game analytical features and chat with other viewers	NBABet Stream, an alternate betting-focused broadcast , features analysts from NBA partners (e.g. Yahoo Sports, Bleacher Report) and complements the platform’s weekly betting show

1. “Sports fans” are defined as adults aged 18+ who followed at least one sport in the last 12 months (e.g. attending live games in person, watching live games or game highlights, reading articles or statistics).
Sources: Activate analysis, Activate 2021 Consumer Technology & Media Research Study (n = 4,018), Bleacher Report, Company sites, GeekWire, TechCrunch

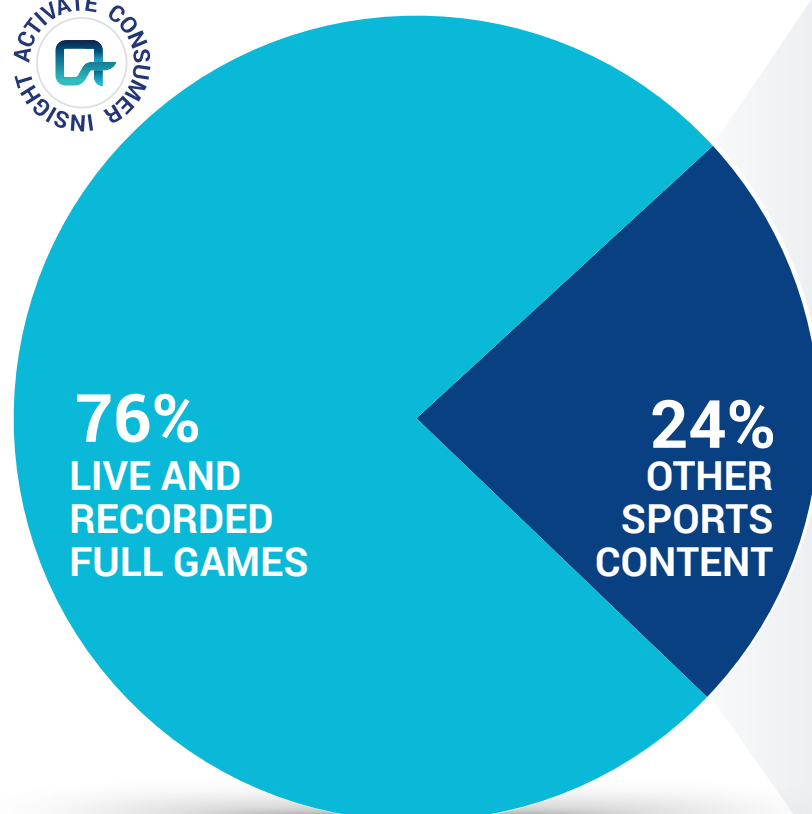
Sports technology innovation, and sports tech company partnerships, will deliver new digital sports experiences and likely deepen fan engagement

EXAMPLES OF SPORTS TECH PARTNERSHIPS THAT ENABLE NEW SPORTS VIEWING EXPERIENCES AND FEATURES

NEW DELIVERY METHODS & AUDIENCES		SPORTS DATA		SPORTS BETTING PROGRAMMING	
<ul style="list-style-type: none">Creates new ways to watch and consume sports content as well as target new audience segmentsDelivers personalized viewing experiences and recommendations to subscribers		<ul style="list-style-type: none">Integrates real-time official sports league data to enable all-in-one entertainment experiences for customers of sports betting operators and media companies		<ul style="list-style-type: none">Develops original betting-focused contentIntegrates sports betting odds within broadcasts	
					
 <p>LaLigaSportsTV, a video streaming service, drives fan engagement through personalized recommendations for subscribers powered by Azure</p>		 <p>Genius Sports uses NASCAR's official data to build a high-end real-time live sports betting platform</p>		 <p>NBC Sports Edge BetCast on Peacock features analysts discussing potential bets using PointsBet odds</p>	

Sports programming beyond live and recorded games will be critical to expand fan engagement

SHARE OF LIVE AND RECORDED FULL GAMES VS. OTHER SPORTS CONTENT CONSUMED, U.S., 2021, % TOTAL TIME SPENT WATCHING SPORTS CONTENT BY SPORTS FANS¹

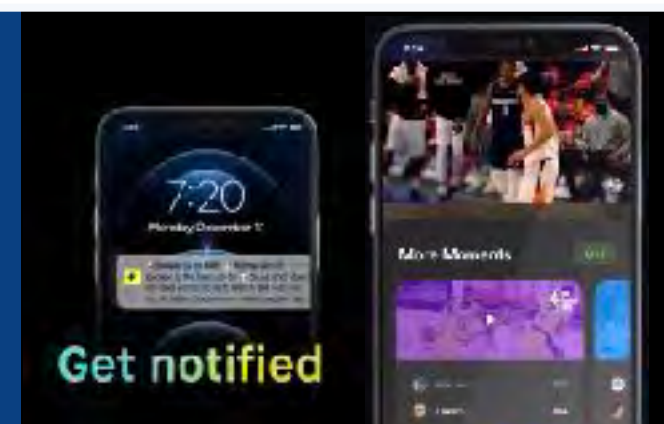


EXAMPLES OF OTHER SPORTS CONTENT AND PROGRAMMING

NBA League Pass BUZZER

ON-DEMAND GAME HIGHLIGHTS & KEY MOMENTS

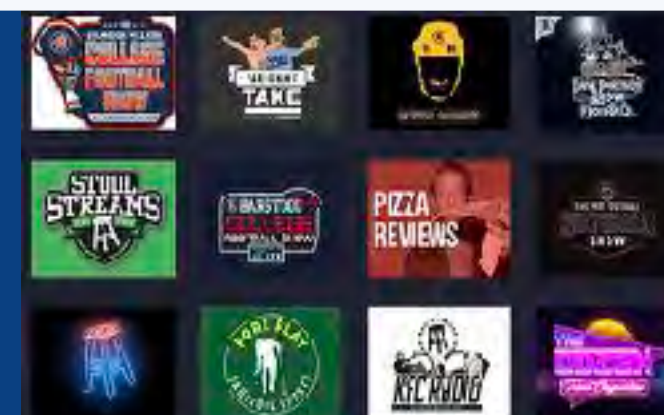
Buzzer customers receive alerts for **key game moments** and **games they indicate interest in** and are able to **purchase segments of games** and **watch them on-demand** through its partnership with NBA League Pass



sling BARSTOOL SPORTS

SUBSCRIBER-EXCLUSIVE PROGRAMMING

Sling TV subscribers receive **access to Barstool Sports Channel**, which hosts **subscriber-exclusive programs** (e.g. Brandon Walker's College Football Show) and **other live content** (e.g. Pardon My Take podcast)



MLB.TV BETMGM

BETTING-RELATED PROGRAMMING

"**Bettor's Eye**," a **daily betting-focused MLB pregame show**, is sponsored by BetMGM and is only available to MLB.TV subscribers



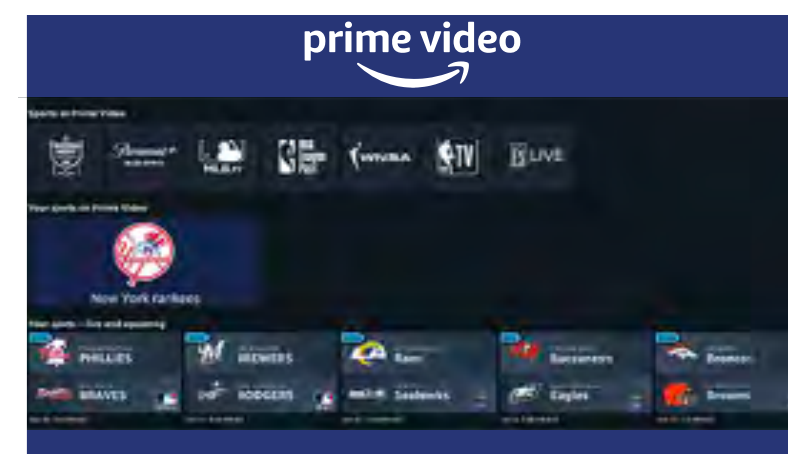
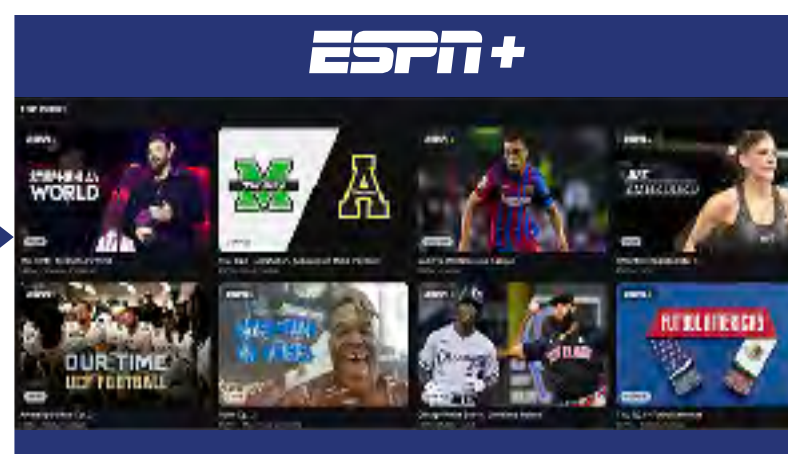
Recommendations and expanded sports programming will increase the number of sports followers on streaming services

REASONS FOR FOLLOWING NEW SPORTS, U.S., 2021, % NEW SPORTS FOLLOWERS¹

EXAMPLES:

26%

of new sports followers started because it was recommended through a streaming service



18%

of new sports followers started because they watched a documentary about it



Football



Auto Racing



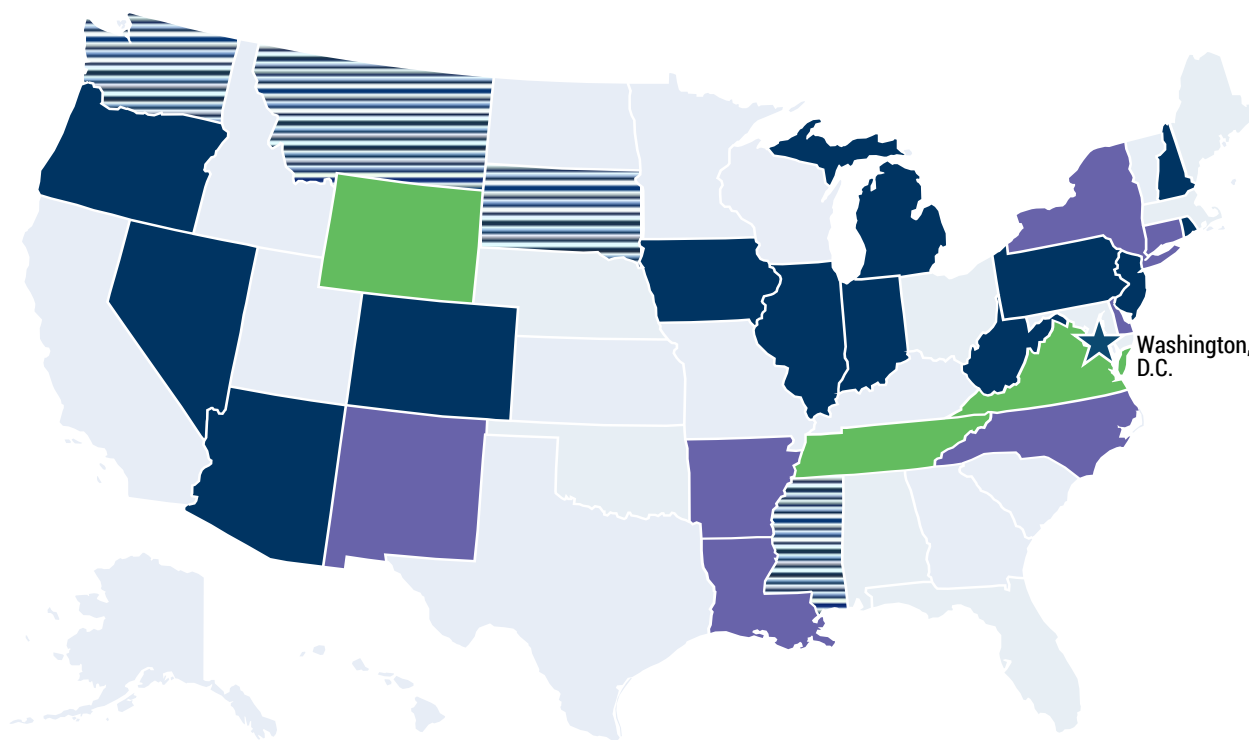
Golf

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In the U.S., 28 states have legal and live sports betting, with the market surpassing \$20B in total wagers in the first half of 2021

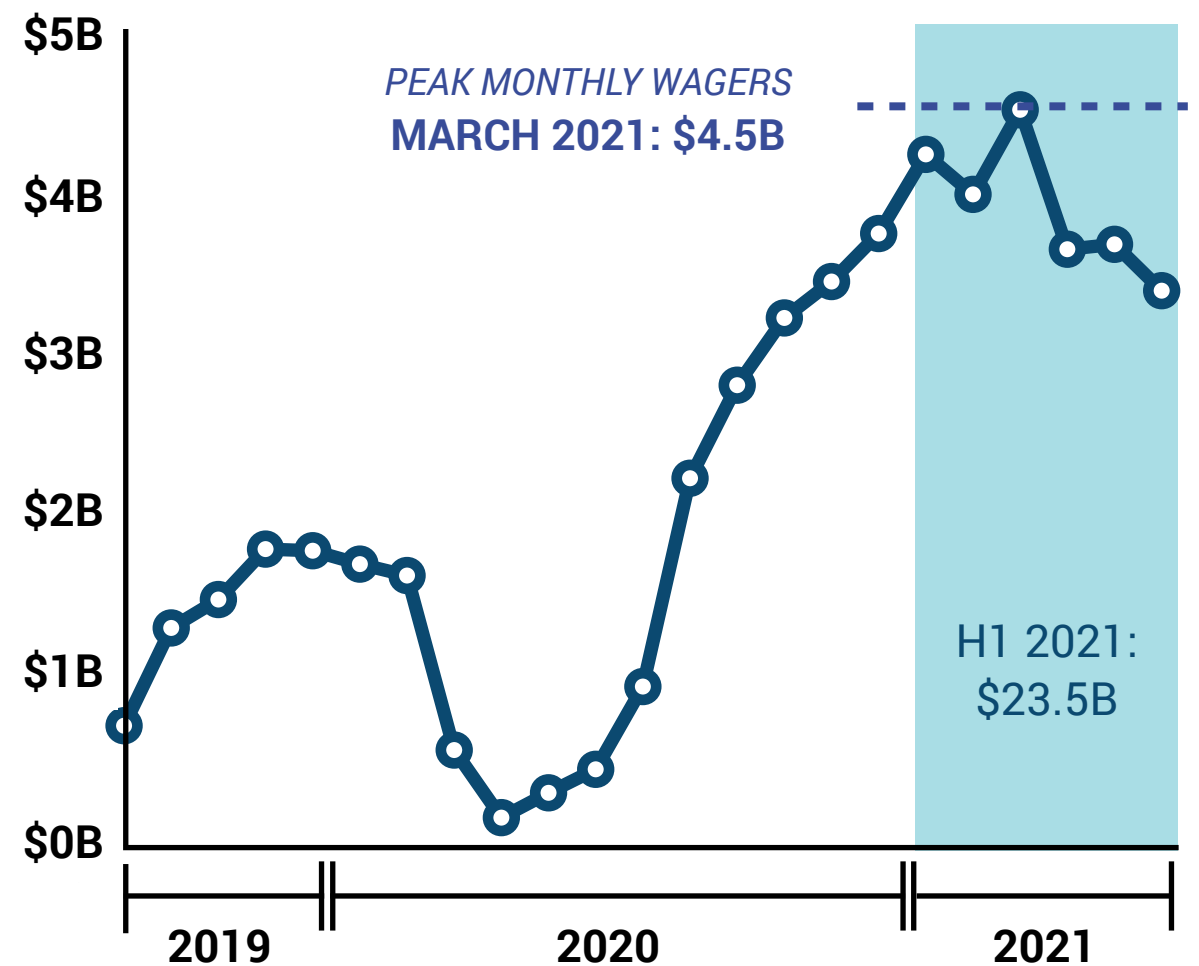
SPORTS BETTING MARKET LIVE STATES¹ BY CHANNEL,
U.S., SEPT. 2021



	# States:
Online & Retail	14
Geofenced Online ² & Retail	4
Online Only	3 ³
Retail Only	7 ⁴
Not Live	23

**28
Live
States¹**

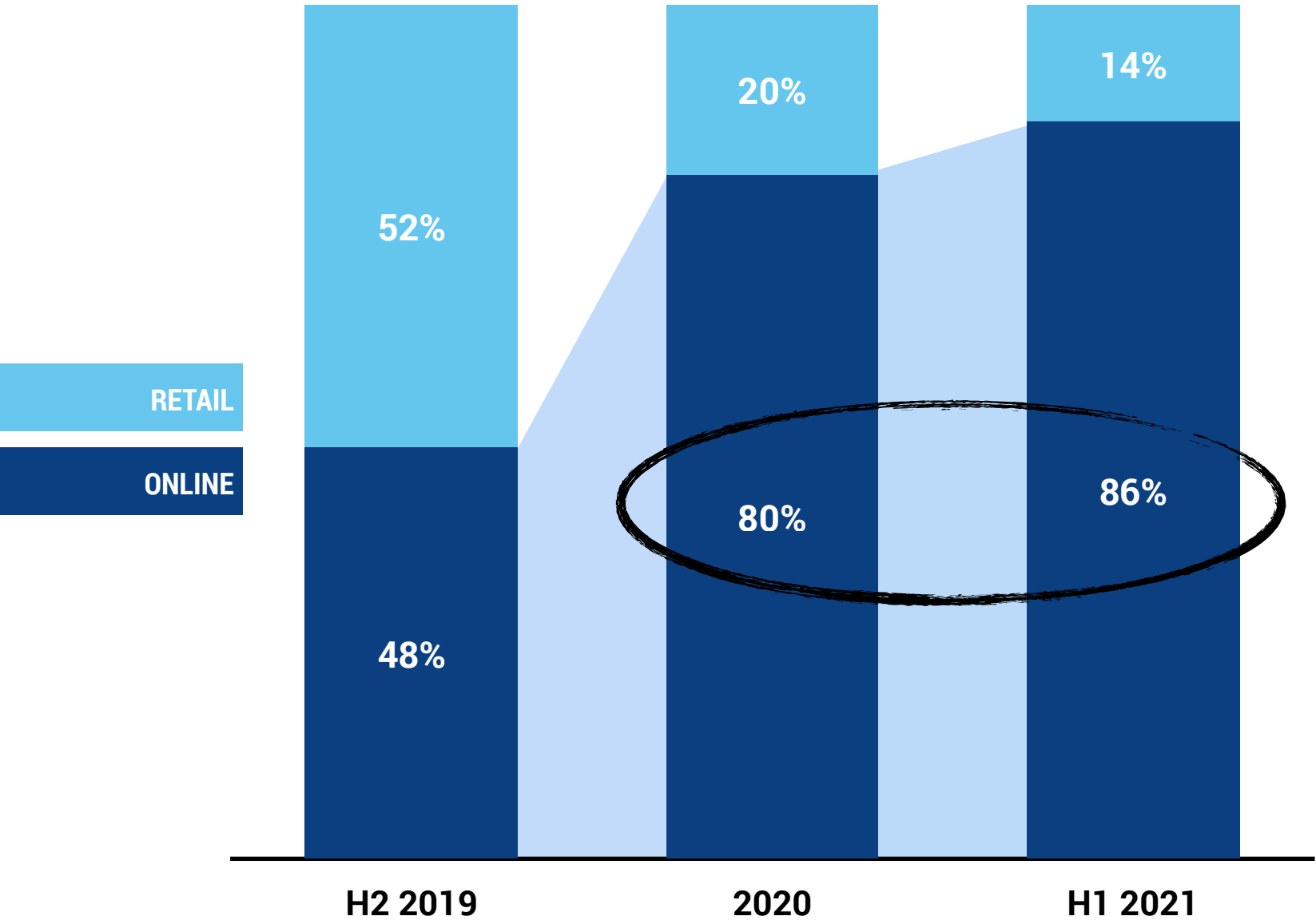
TOTAL SPORTS BETTING WAGERS BY MONTH,
U.S., AUG. 2019-JUNE 2021, BILLIONS USD



Note: Sports betting excludes fantasy sports. 1. "Live states" are defined as states in which sports betting is legal and currently operational as of Sept. 2021. Includes Washington, D.C. as a state. 2. Online sports betting is legal and live, but permitted only within the physical boundaries of a retail-licensed sports betting operator (e.g. sports venues, casinos, hotels, restaurants). 3. Retail sports betting is legal in VA, but not live. 4. Online sports betting is legal in CT, LA, and NY, but not live.
Sources: Activate analysis, Legal Sports Report, State regulator sites

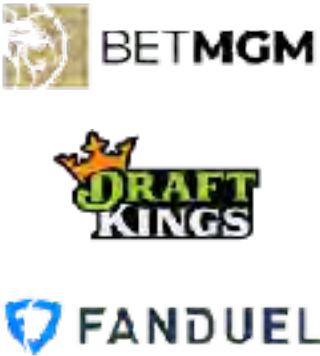
The pandemic has accelerated the shift to online sports betting

TOTAL SPORTS BETTING WAGERS BY CHANNEL¹, U.S., H2 2019-H1 2021, % TOTAL DOLLARS WAGERED



DRIVERS OF ONLINE SPORTS BETTING GROWTH

The majority of regulated and regulating states have more licenses (i.e. “skins”) for the online channel compared to retail, enabling several U.S.-based brands to grow even in states where they do not have retail presence



Global sports betting brands are successfully entering the U.S. online sports betting market, either individually or through partnerships with U.S. entities to develop more advantaged offerings



1. Includes states with legal and live sports betting in both retail and online channels.
Sources: Activate analysis, State regulator sites

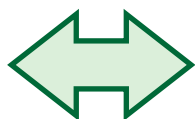
Betting operators are forging partnerships with and pursuing investments in media and content to gain relevance and brand awareness, while technology innovators are also entering the space

SELECT RECENT PARTNERSHIPS, ACQUISITIONS, AND INVESTMENTS AND NOTABLE SPORTS BETTING TECHNOLOGY COMPANIES

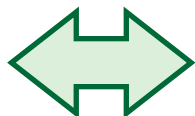
PARTNERSHIPS, ACQUISITIONS, AND INVESTMENTS



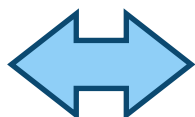
DraftKings acquired VSiN to build out its content capabilities; VSiN produces and distributes up to 18 hours of live linear sports betting content daily



SportsGrid integrated FanDuel odds and data in original branded and non-branded shows and collaborated on 50+ hours of original content



NBA TV created a weekly show that integrates betting-focused content from BetMGM across NBA.com, the NBA app, and social platforms



Penn National Gaming invested in Barstool Sports to drive customer acquisition – in 2023 Penn will pay an additional \$62M to increase their stake to 50%



Bally's leveraged SportCaller's expertise as a leading global free-to-play games provider to create games that introduce customers to real-money offerings

Partnership Acquisition/Investment

NEW TECHNOLOGY STARTUPS



B2B provider of sports betting and casino gaming products, now developing consumer-facing sports betting brand



Interactive content and games company centered around betting education, sports fans, and the athlete perspective



Real-time live odds aggregator allowing bettors to access odds and place bets by taking a picture of live game on phone



Nation's first and only 24-hour sports betting and fantasy sports network featuring statistics and expert analysis

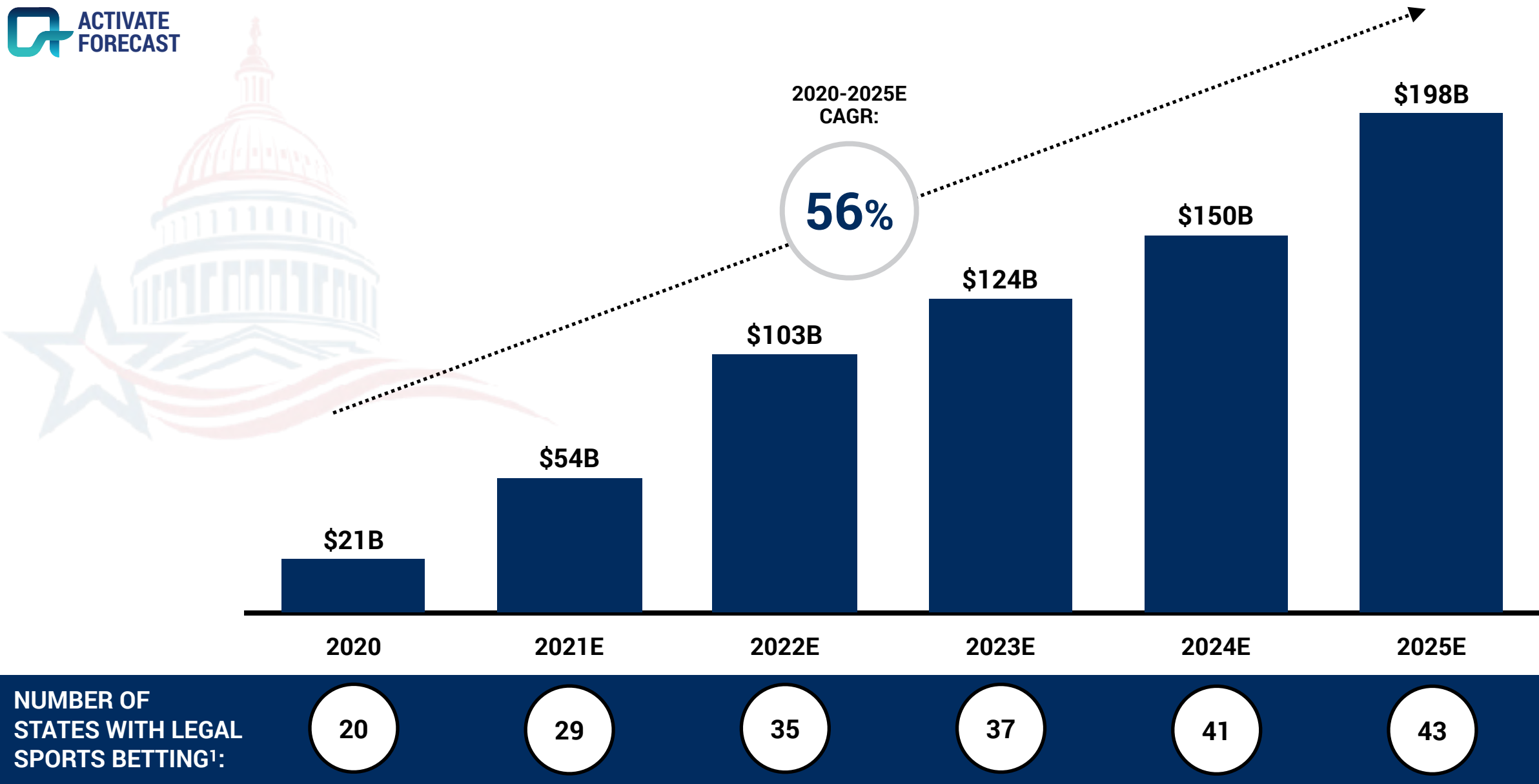


Sporttrade

Dynamic sports betting and trading exchange modeled after financial markets

We forecast that the total sports betting amount wagered will reach nearly \$200B by 2025 as sports betting becomes legal in a growing number of states

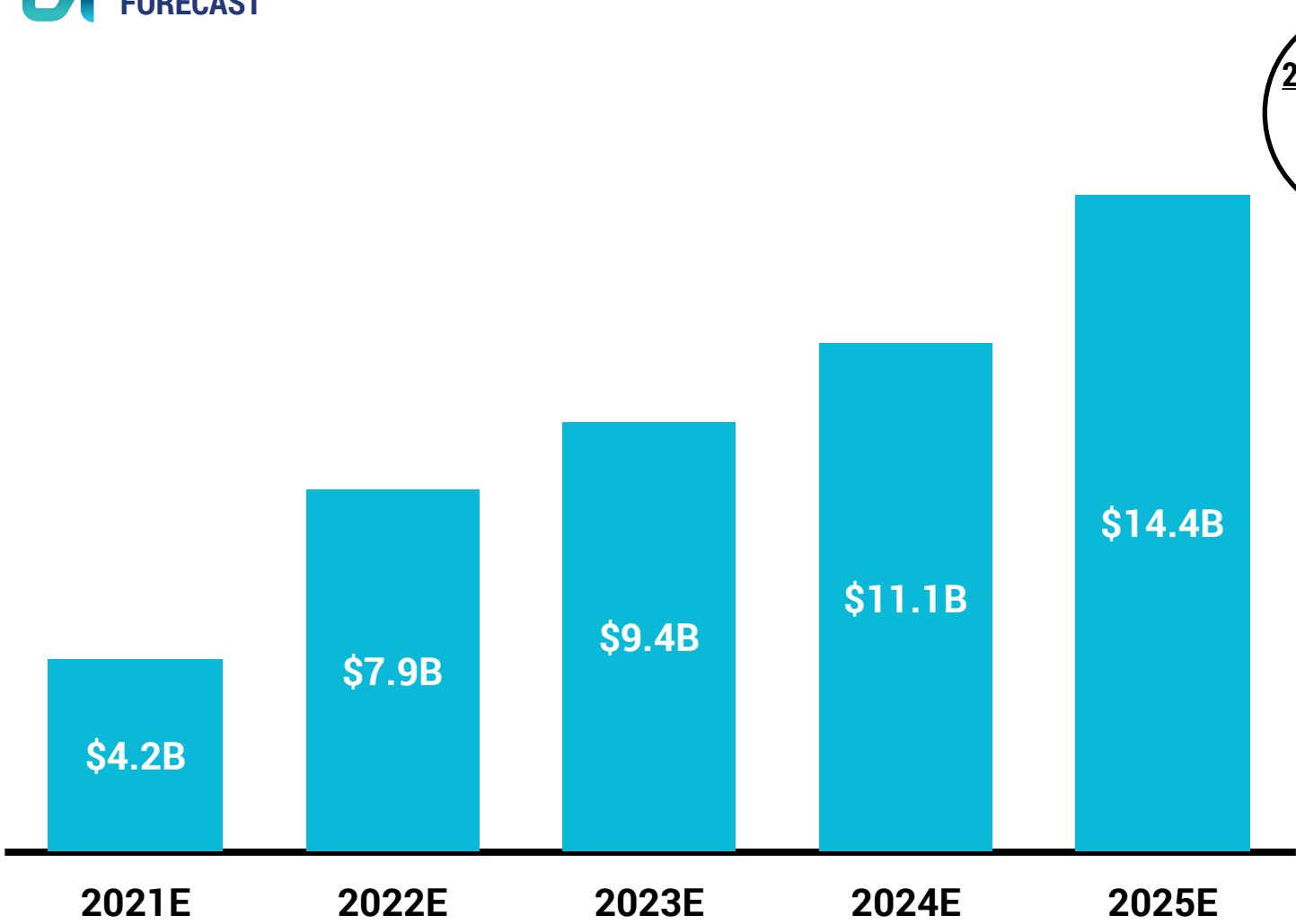
TOTAL SPORTS BETTING AMOUNT WAGERED, U.S., 2020-2025E, BILLIONS USD



1. Projected number of states that have legalized betting but not necessarily launched betting by the end of the stated year.
Sources: Activate analysis, Action Network, Legal Sports Report, Nevada Gaming Control Board, U.S. Bureau of Economic Analysis

We expect that U.S. sports betting revenues will reach \$14B by 2025

DIRECT SPORTS BETTING REVENUE¹, U.S., 2021E-2025E, BILLIONS USD



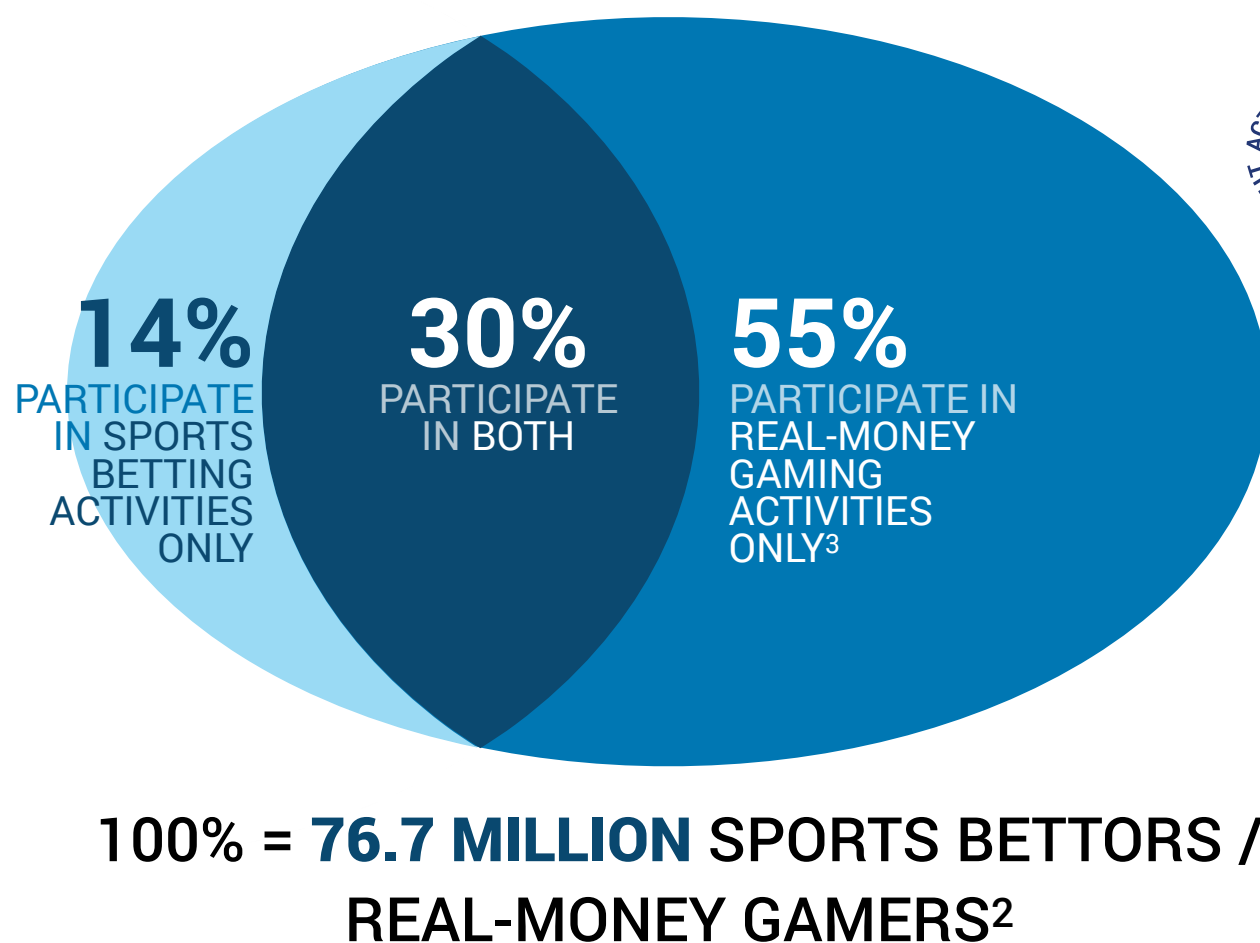
DIRECT SPORTS BETTING REVENUE GOES TO:

ONLINE SPORTSBOOKS
CASINOS/RACETRACKS
STATES ²

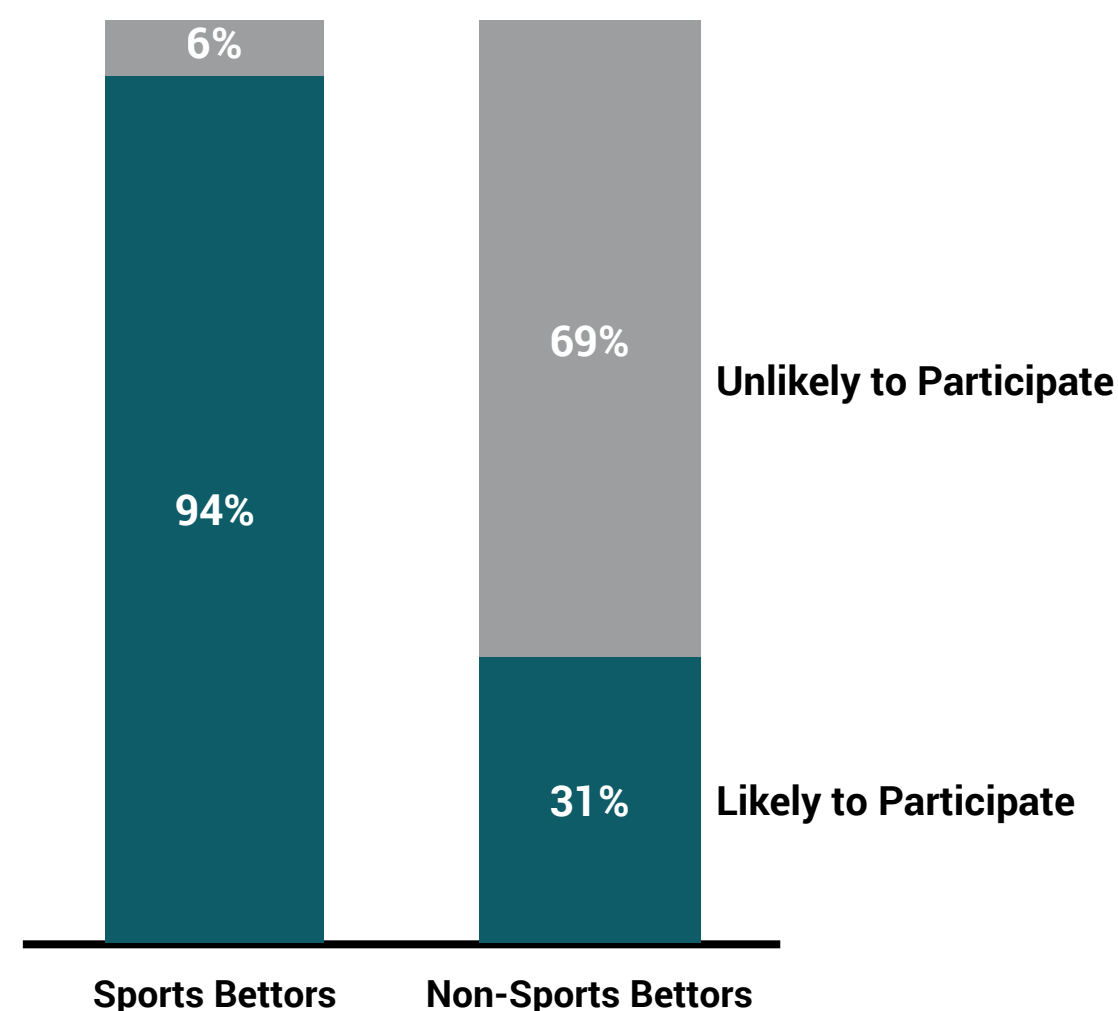
1. Direct sports betting revenue is determined as a share of the total amount wagered and depends on odds, type of wager, and individual sportsbooks. The betting provider's take rate ranges as a % of total amount wagered. 2. State tax income is generated as a share of the total amount wagered, a share of gross gaming revenue (ranges depending on the state and type of betting), and by gaming licensing fees.
Sources: Activate analysis, Eilers & Krejcik Gaming, Legal Sports Report, The Lines, Nevada Gaming Control Board, U.S. Bureau of Economic Analysis

The same people who are betting on sports are also participating in other types of online gaming activities

OVERLAP BETWEEN SPORTS BETTORS AND REAL-MONEY GAMERS¹, U.S., 2021, % SPORTS BETTORS / REAL-MONEY GAMERS²



LIKELIHOOD OF PARTICIPATING IN IGAMING⁴, U.S., 2021, % ADULTS AGED 18+ WHO DO NOT CURRENTLY PARTICIPATE IN REAL-MONEY GAMING ACTIVITIES³ BY SPORTS BETTING STATUS



1. Figures do not sum to 100% due to rounding. 2. "Sports bettors and/or real-money gamers" are adults aged 18+ who have participated in at least one betting or real-money gaming activity (betting on sports, esports, or virtual sports or playing casino table games, bingo, poker, or slots with real money) in-person or online in the last 12 months. 3. Includes both in-person and online real-money gaming activities (casino table games, bingo, poker, or slots). 4. Online real-money gaming activities only (online casino table games, bingo, poker, or slots).

Sources: Activate analysis, Activate 2021 Consumer Technology & Media Research Study (n = 4,018), U.S. Census Bureau

Despite legalization in only 6 states as of July 2021 (vs. 17 for online sports betting), iGaming has already attracted 4x the amount wagered on sports betting

ONLINE SPORTS BETTING VS. IGAMING¹ TOTAL GROSS REVENUE AND WAGERS, U.S., YTD JULY 2021, BILLIONS USD

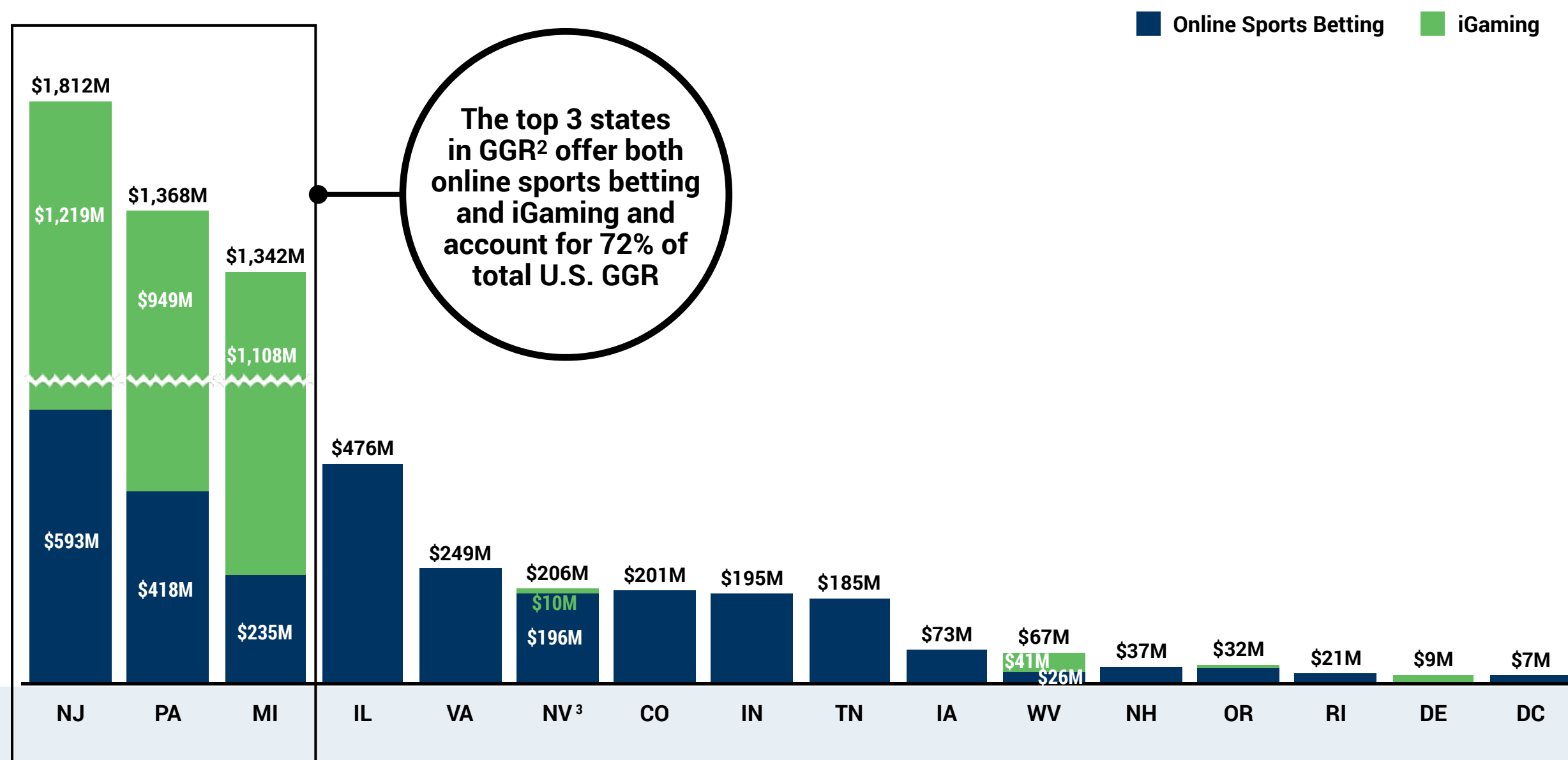


1. "iGaming" is defined as playing casino table games, bingo, poker, or slots online with real money. 2. Includes two states (MS, MT) where online sports betting is legal and live, but only within retail-licensed premises. Four states (AZ, WA, WY, SD) have launched online sports betting since July 2021. WA and SD are legal and live only within retail-licensed premises. 3. Total dollars wagered less customer winnings.

Sources: Activate analysis, Legal Sports Report, State regulator sites

States that have legalized both sports betting and iGaming are leading in gross gaming revenue

ONLINE SPORTS BETTING AND IGAMING GROSS REVENUE¹ BY STATE², U.S., AUG. 2020-JULY 2021, MILLIONS USD



1. Total dollars wagered less customer winnings. Median of monthly non-zero revenues between August 2020 and July 2021 annualized. "iGaming" is defined as playing casino table games, bingo, poker, or slots online with real money. 2. Includes states where online sports betting and/or iGaming was legal and live for at least one month during the period of August 2020 to July 2021. Figures do not sum due to rounding. 3. Poker is the only iGaming sub-product legal and live in Nevada. Sources: Activate analysis, State regulator sites

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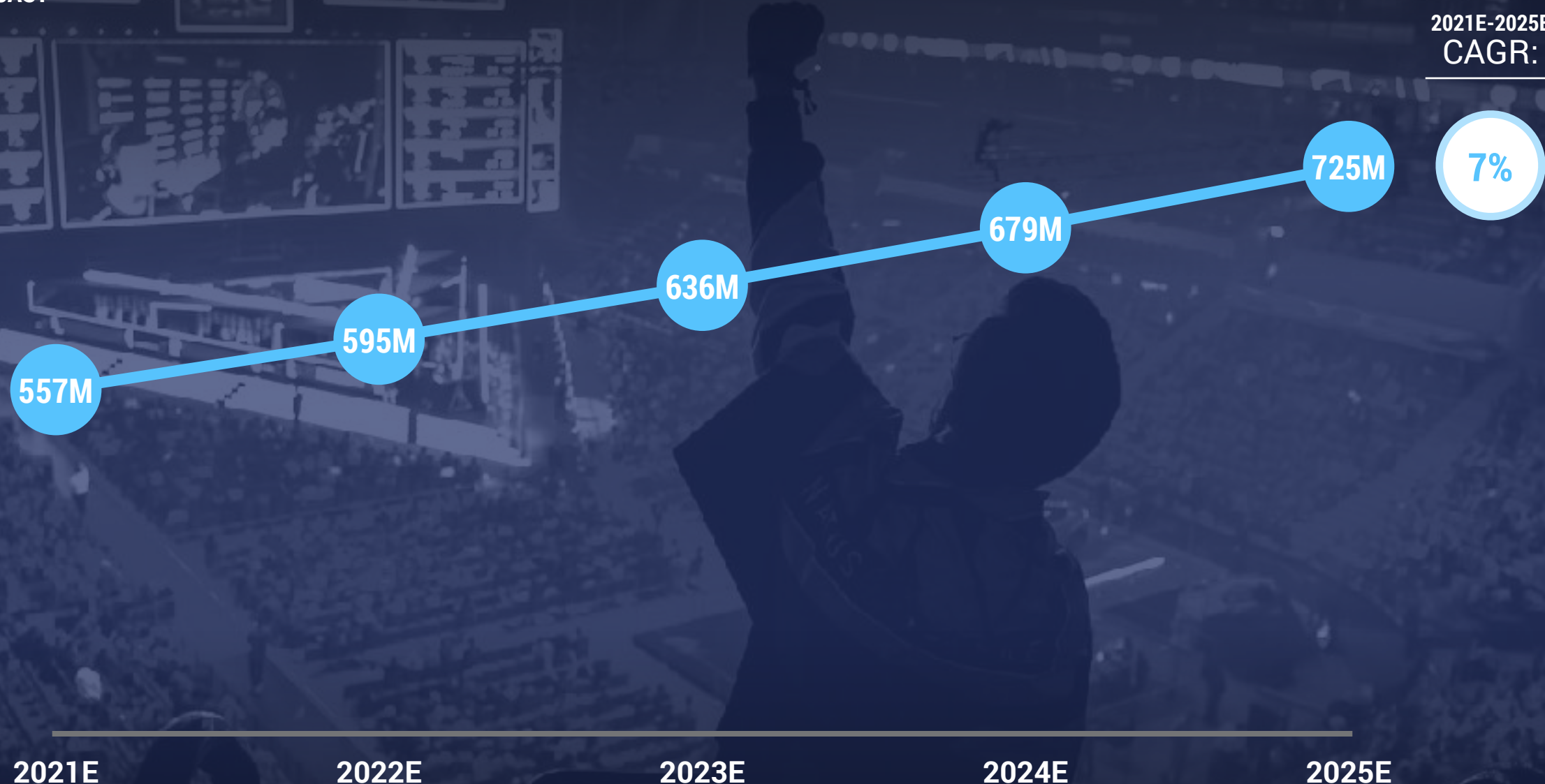
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The global esports audience will grow to surpass 700 million viewers by 2025

ESPORTS VIEWERSHIP, GLOBAL, 2021E-2025E, MILLIONS ESPORTS VIEWERS

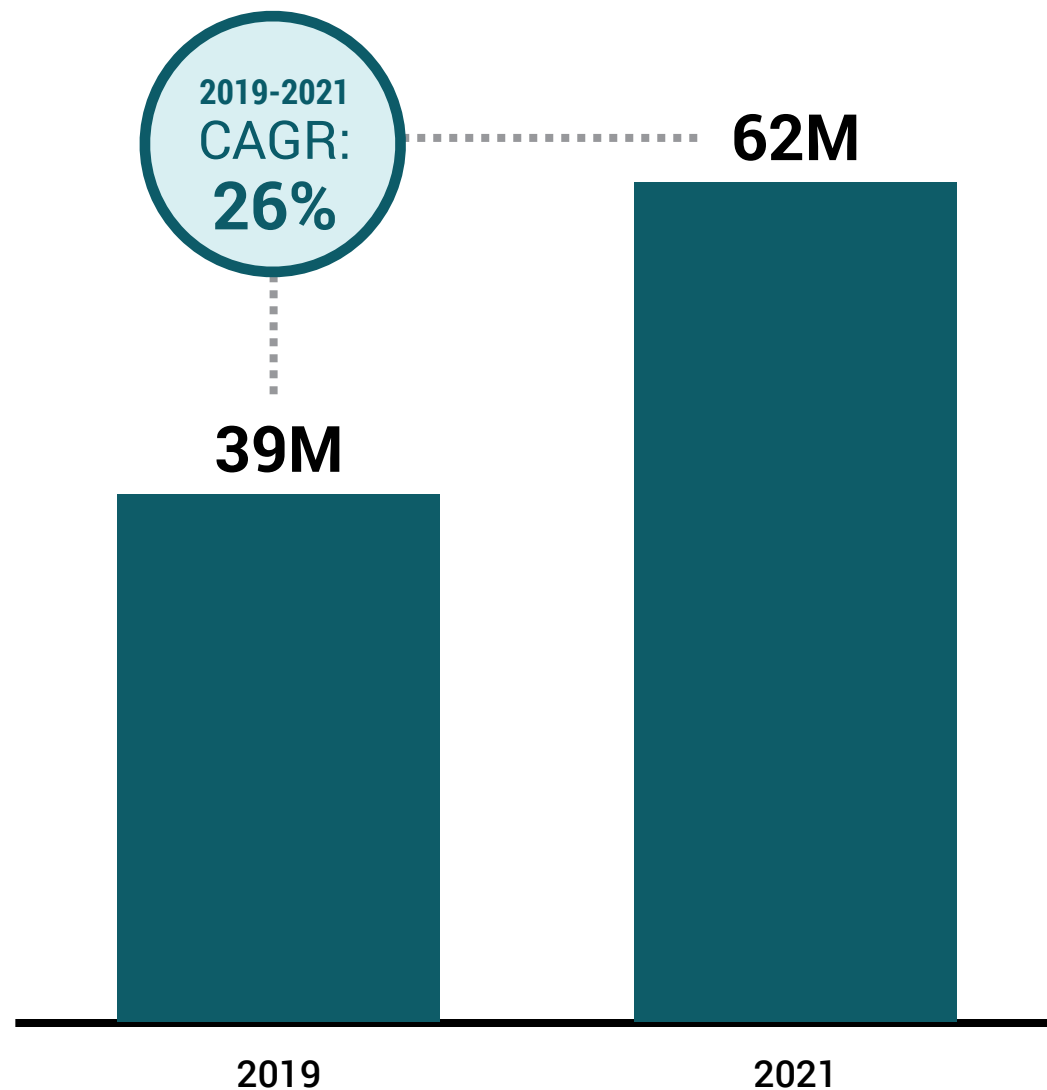
ACTIVATE
FORECAST

GLOBAL
ESPORTS
AUDIENCE



In the U.S., esports viewership has grown to over 60M; the core demographic of U.S. esports viewers is young, affluent, educated, and male

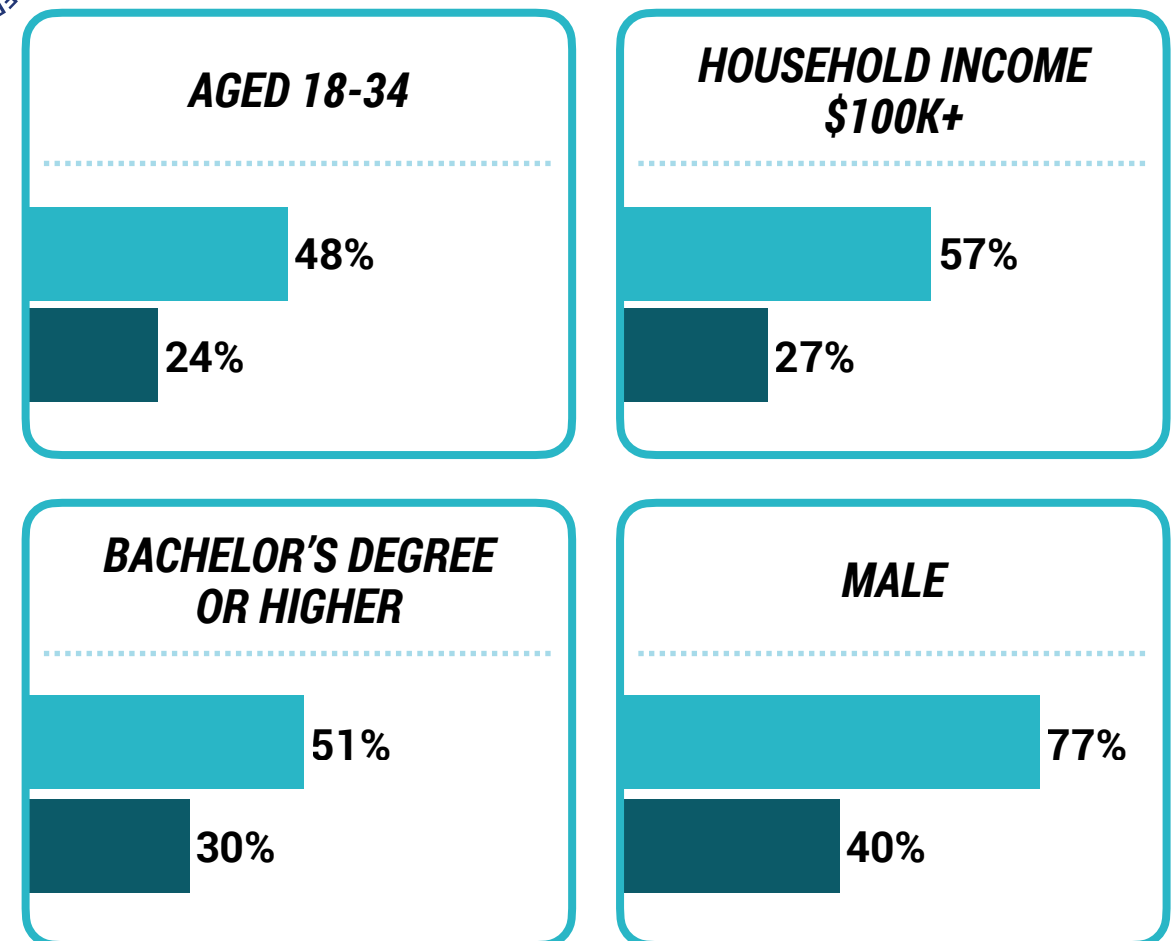
ESPORTS VIEWERSHIP,
U.S., 2019-2021, MILLIONS ESPORTS VIEWERS¹



DEMOGRAPHICS BY ESPORTS VIEWERSHIP, U.S., 2021,
% ESPORTS VIEWERS VS. NON-ESPSPORTS VIEWERS¹



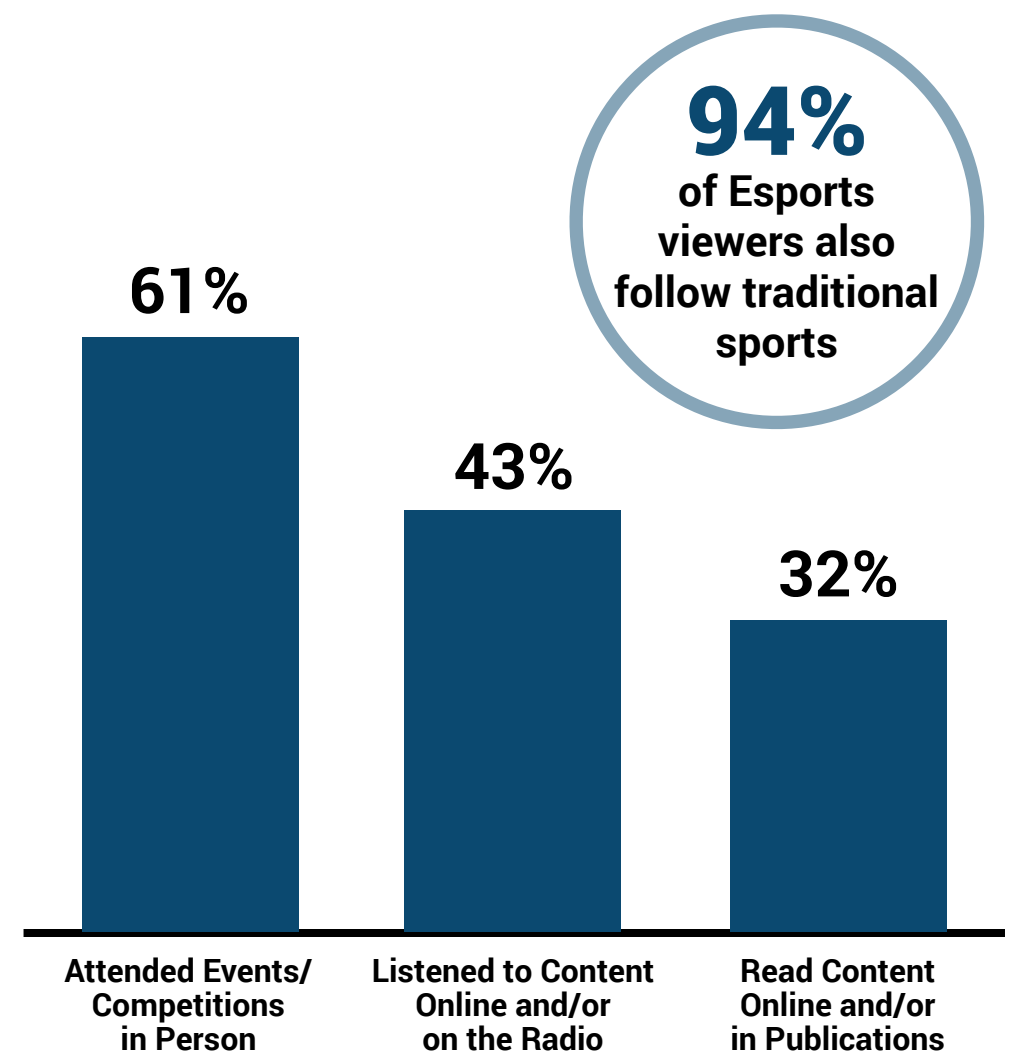
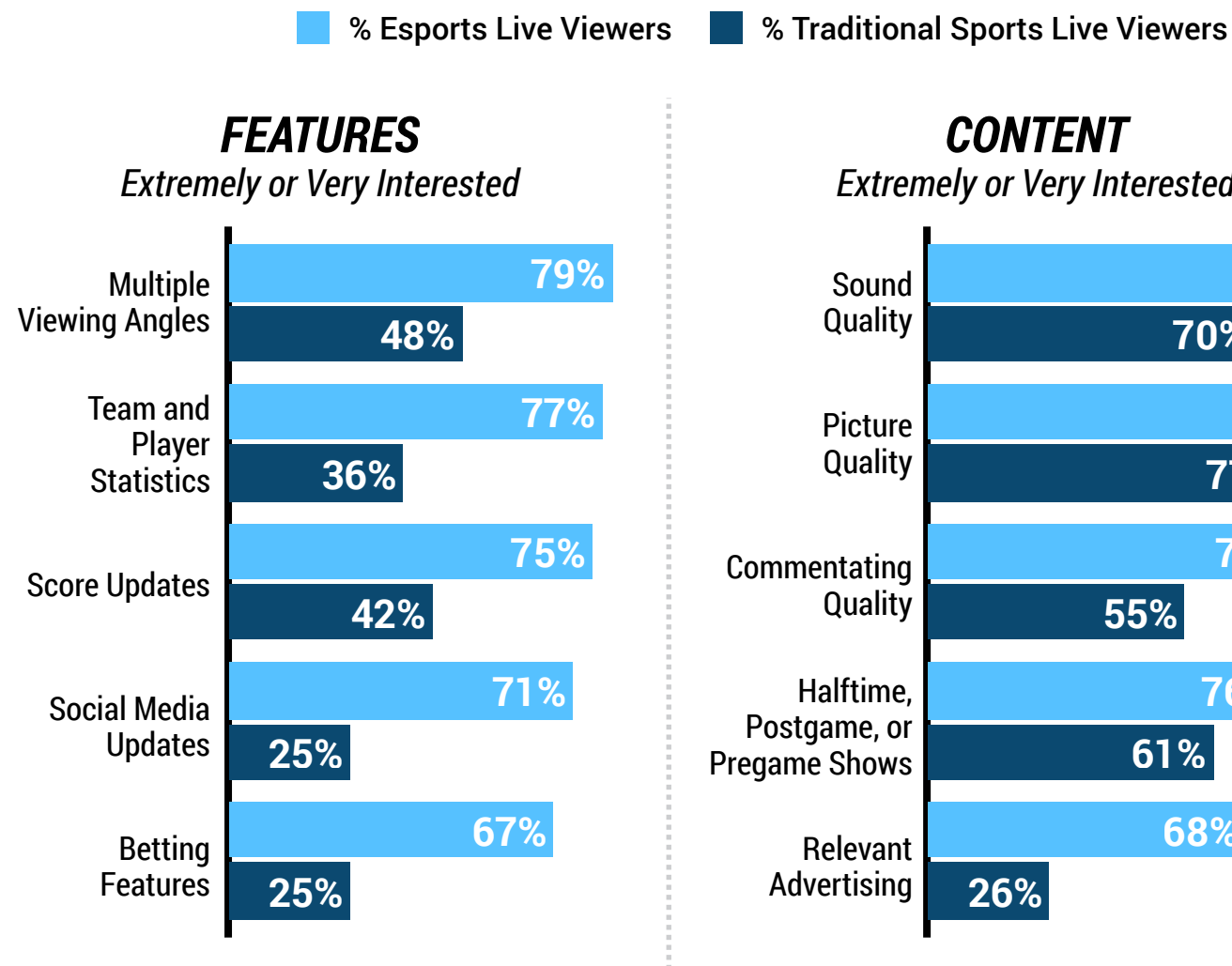
Esports Viewers¹
Non-Esports Viewers



Esports viewers pursue feature- and content-rich viewing experiences; they also attend events and follow the sport through audio and online publications

INTEREST IN LIVE VIEWING FEATURES AND CONTENT WHILE WATCHING LIVE ESPORTS / TRADITIONAL SPORTS, U.S., 2021, % ESPORTS / TRADITIONAL SPORTS LIVE VIEWERS¹

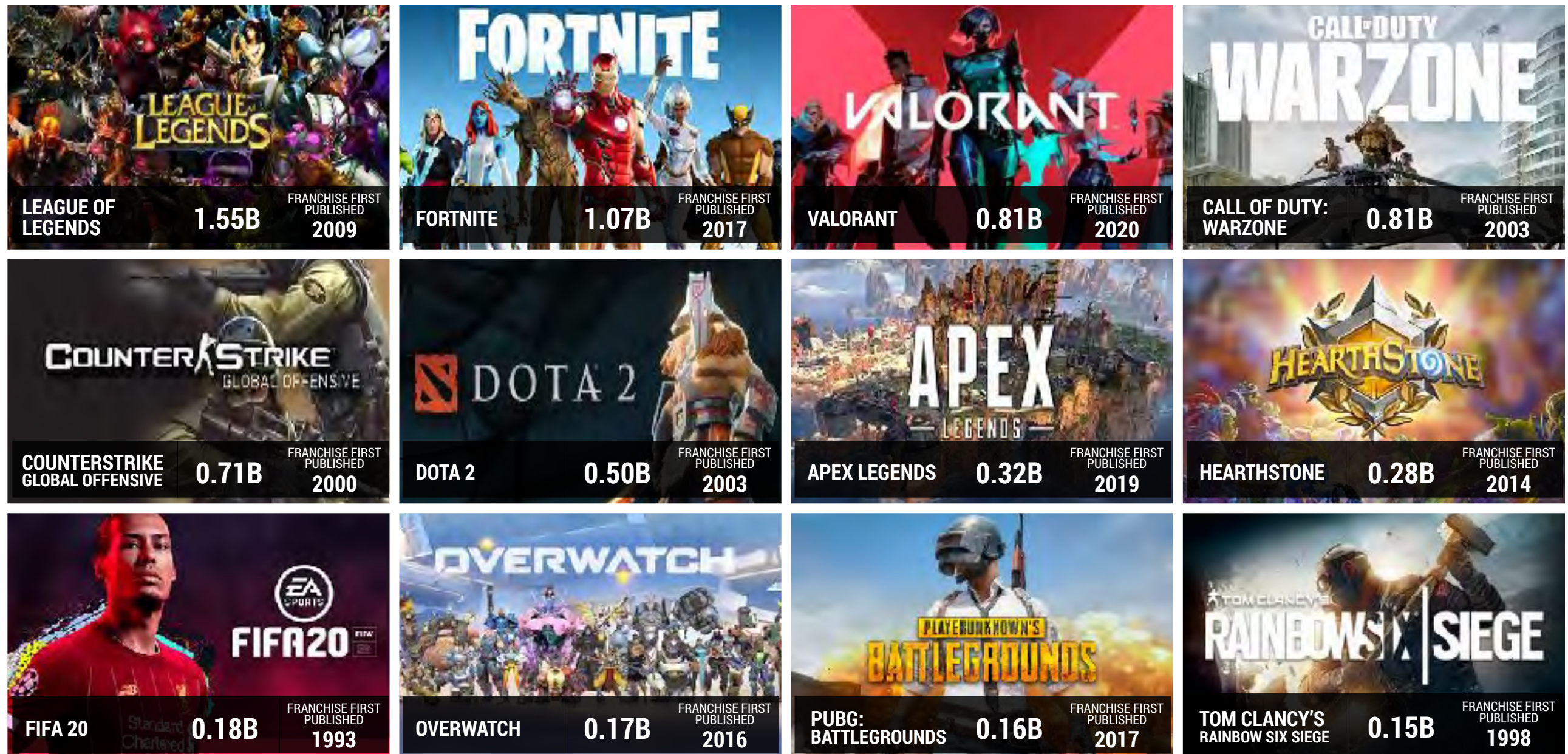
ENGAGEMENT WITH TYPES OF ESPORTS CONTENT IN THE LAST 12 MONTHS, U.S., 2021, % ESPORTS VIEWERS²



The most-watched esports titles include both established franchises and relatively recent entrants; esports presents an opportunity for new titles with fresh and compelling content to capture audiences



TOP ESPORTS¹ TITLES BY TOTAL HOURS WATCHED ON TWITCH, GLOBAL, 2020, BILLIONS HOURS



There will be considerable investment in the esports space by traditional sports leagues and teams, as well as other companies

TRADITIONAL SPORTS

— LEAGUES & TOURNAMENTS —

NBA-OWNED LEAGUE¹



NBA 2K LEAGUE

FORMULA 1-OWNED LEAGUE



FORMULA 1 ESPORTS SERIES

FIFA-OPERATED TOURNAMENT



FIFA EWORLD CUP

TEAMS

GOLDEN STATE WARRIORS-OWNED TEAM



WARRIOR GAMING SQUAD

GALATASARAY OWNED TEAM



GALATASARAY ESPORTS

PSG²-OWNED ESPORTS ORGANIZATION³



PSG² ESPORTS

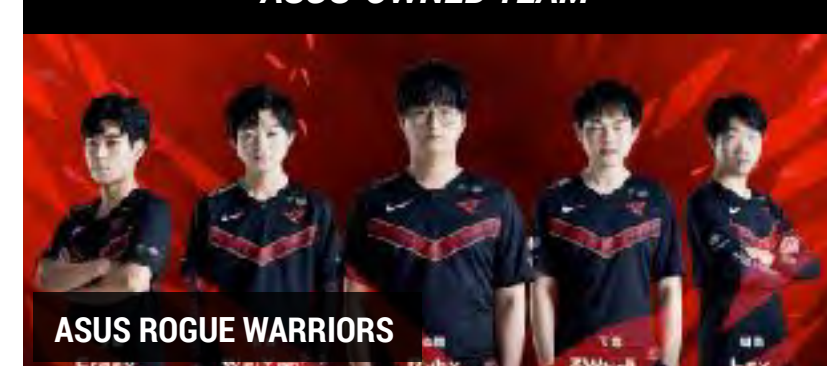
OTHER COMPANIES

SK TELECOM AND COMCAST SPECTATOR-OWNED ESPORTS ORGANIZATION⁴



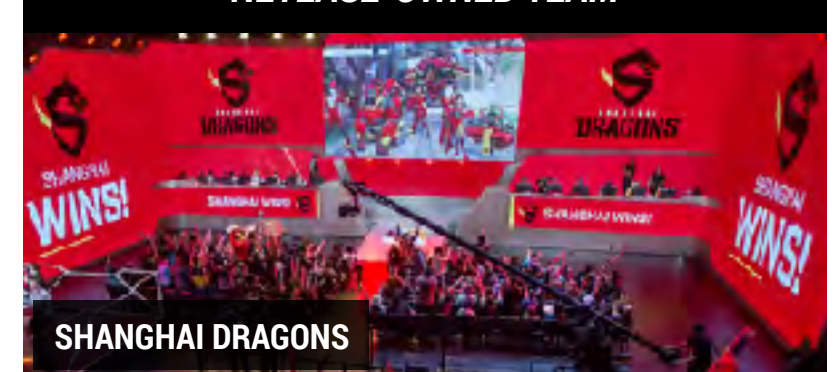
T1 ESPORTS

ASUS-OWNED TEAM



ASUS ROGUE WARRIORS

NETEASE-OWNED TEAM



SHANGHAI DRAGONS

A broad set of consumer brands will partner with esports companies for collaborations, sponsorships, and new products

BEAUTY & FASHION

LOUIS VUITTON-BRANDED PRODUCT



GUCCI-BRANDED PRODUCT



NYX-SPONSORED ESPORTS ORGANIZATION¹



CONSUMER GOODS

BUD LIGHT-OPERATED TOURNAMENT



DORITOS-SPONSORED TOURNAMENT



MOUNTAIN DEW ESPORTS-THEMED PRODUCT



Platforms offering wagers and competitions for popular esports titles, along with integrations within casual gaming titles, have further engaged and monetized the captive esports audience, garnering the interest of major gambling operators

TRENDS AND DEVELOPMENTS IN ESPORTS BETTING

ESPORTS BETTING PLATFORMS ALLOW AMATEURS TO PLACE WAGERS ON ESPORTS COMPETITIONS

Anyone can place wagers on dedicated esports betting platforms:

- Amateurs can **bet while watching or playing popular esports titles** like Counter-Strike: Global Offensive and Fortnite
- Platforms include **all-in-one esports entertainment offerings** (e.g. providing esportsbooks, publishing betting odds and statistics, integrating with Twitch streams and social feeds)



INTEGRATED BACK-END PROVIDERS CREATE MONETIZATION OPPORTUNITIES WITHIN CASUAL GAMING TITLES

Players can bet on their performance:

- Providers offer back-end infrastructure **directly into casual games** to allow players to buy into **gamified wagers**
- Players can wager **based on their own achievements or in competition against peers via matchmaking systems**

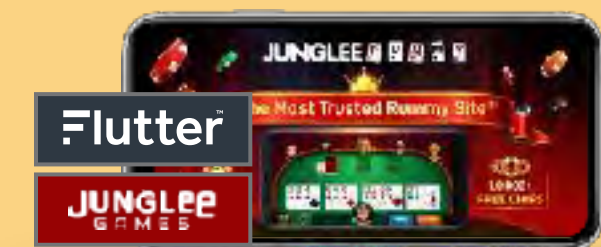


MAJOR GAMBLING COMPANIES WANT TO BE INVOLVED IN THE ESPORTS SPACE

Entain acquired all-inclusive esports betting and skills-based wagering platform Unikrn



Flutter Entertainment acquired a majority stake in Indian rummy operator Junglelee Games

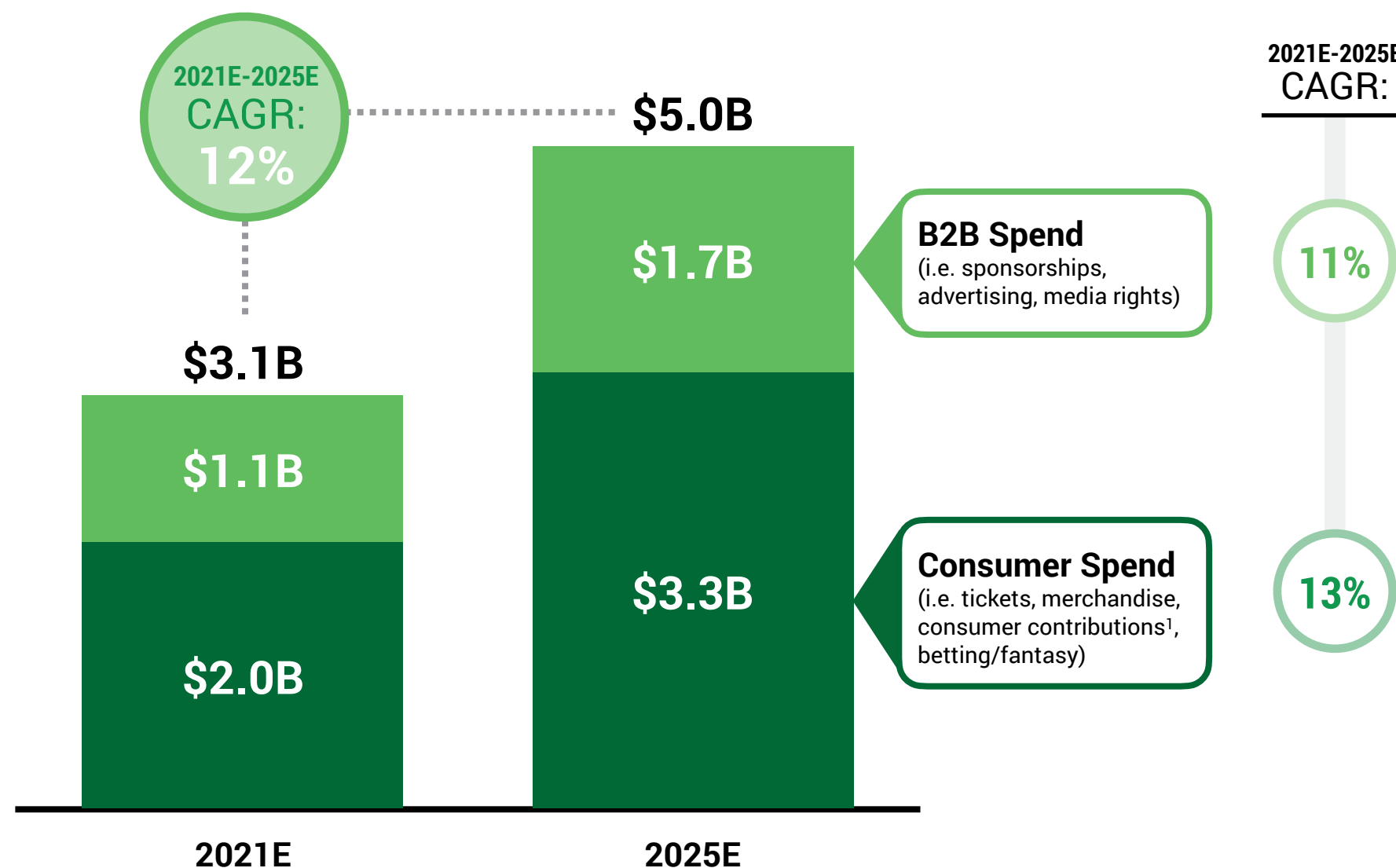


Kambi acquired esports data and technology platform Abios



Esports revenue will grow to \$5B by 2025, with consumer spend as the largest driver of growth

ESPORTS REVENUE BY TYPE, GLOBAL, 2021E VS. 2025E, BILLIONS USD



1. "Consumer contributions" is defined as consumer spend on purchasable items that grant access to tournament and event features and only includes spend towards organized esports events.

Sources: Activate analysis, Activate 2021 Consumer Technology & Media Research Study (n = 4,018), Newzoo, PricewaterhouseCoopers

The importance of esports goes well beyond its direct financial potential, impacting a broad set of other technology and media experiences

ESPORTS FOLLOWERS¹ VS. NON-ESPORTS FOLLOWERS LIKELIHOOD TO HAVE ENGAGED IN MEDIA BEHAVIORS, U.S., 2021

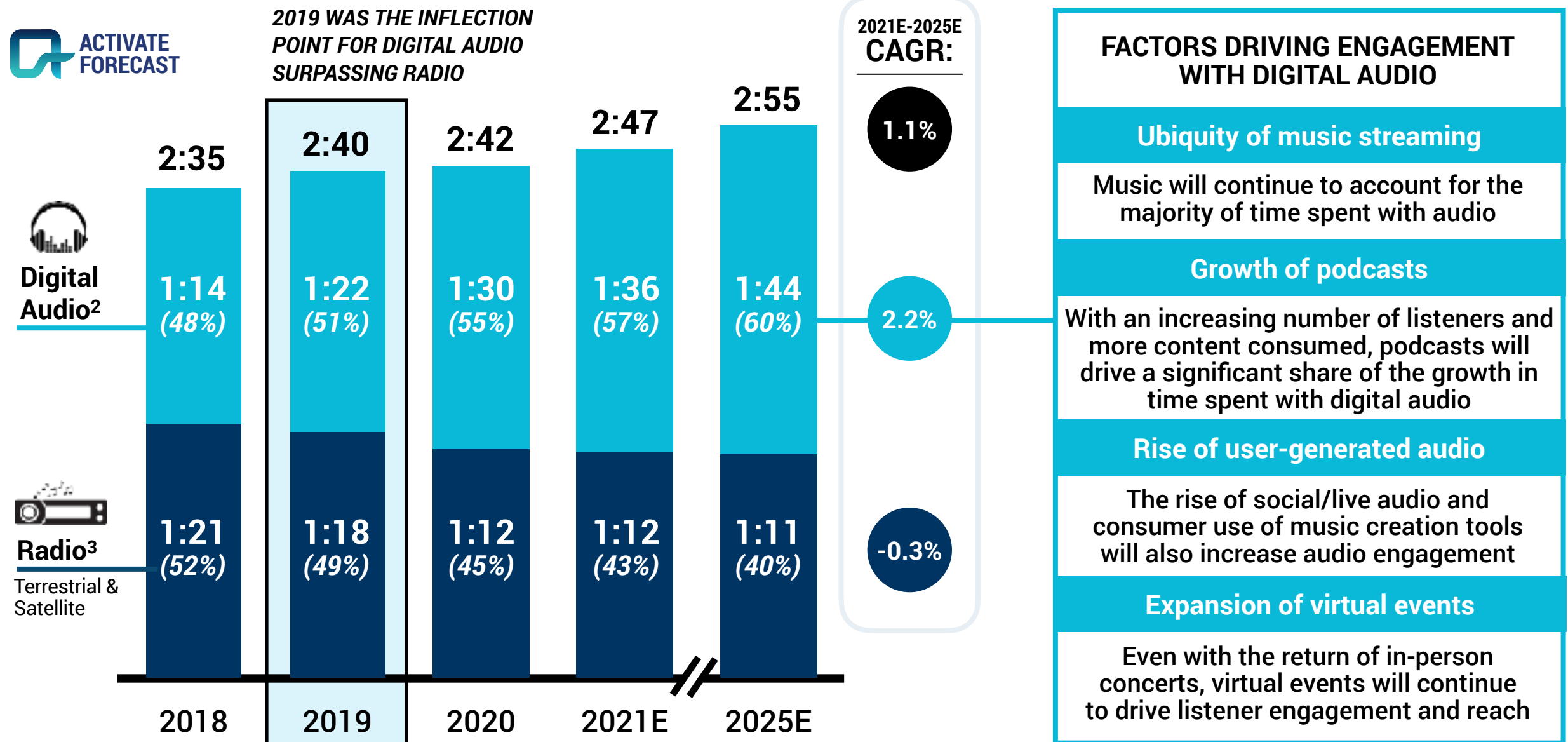


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Audio is one of the fastest growing media behaviors, driven by increased consumer time spent with digital audio

AVERAGE DAILY AUDIO TIME PER ADULT AGED 18+ BY TYPE¹, U.S., 2018-2021E VS. 2025E, HOURS:MINUTES / % TOTAL AUDIO TIME



1. Figures do not sum due to rounding. 2. "Digital Audio" includes audio streamed via mobile and desktop/laptop.

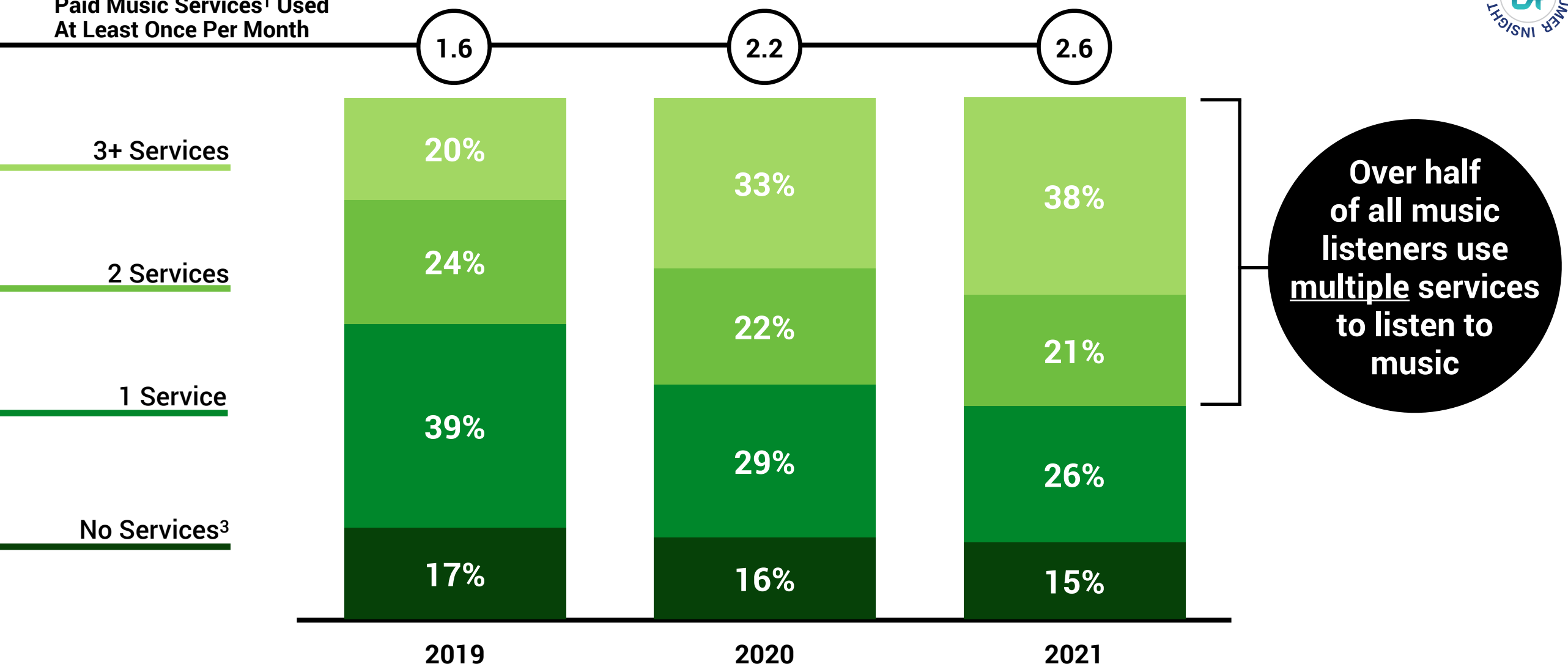
3. "Radio" excludes digital radio.

Sources: Activate analysis, Activate 2021 Consumer Technology & Media Research Study (n = 4,018), AudienceNet, eMarketer, GWI, Nielsen

Music listeners are increasingly using more services to listen to music, with an average of 2.6 services used today

NUMBER OF FREE OR PAID MUSIC SERVICES¹ USED AT LEAST ONCE PER MONTH, U.S., 2019-2021, % MUSIC LISTENERS²

Average Number of Free or Paid Music Services¹ Used At Least Once Per Month



1. "Music services" include free and paid services used for listening to music through any format excluding terrestrial radio.

2. "Music listeners" are defined as adults aged 18+ who spend any time listening to music. 3. "No Services" includes those who do not use music services (e.g. only listen through terrestrial radio, CDs, vinyl).

Sources: Activate analysis, Activate 2019 Consumer Technology & Media Research Study (n = 4,006), Activate 2020 Consumer Technology & Media Research Study (n = 4,003), Activate 2021 Consumer Technology & Media Research Study (n = 4,018)

Top audio streaming services achieve adoption and usage by offering both free and paid tiers

FREE OR PAID MUSIC SERVICES USED AT LEAST ONCE PER MONTH, U.S., 2021, % MUSIC LISTENERS¹

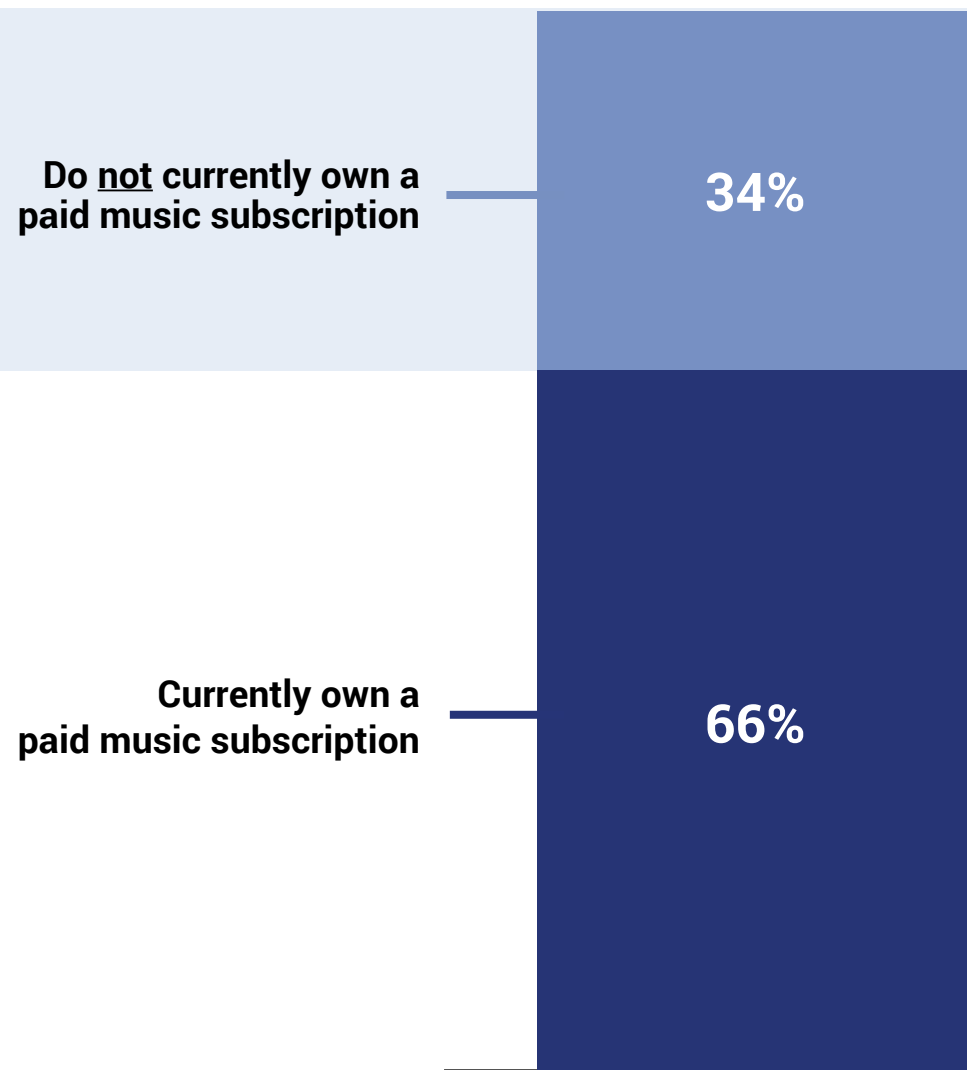


		TIERS AVAILABLE	
		FREE/AD-SUPPORTED	PAID SUBSCRIPTION
YouTube / Music	53%	✓	✓
amazon music ²	38%	✓	✓
Spotify	30%	✓	✓
pandora	25%	✓	✓
Apple MUSIC	19%		✓
((SiriusXM)))	18%		✓
iHeartRADIO	16%	✓	✓
SOUND CLOUD	12%	✓	✓
Audacy	9%	✓	
TIDAL	7%		✓
TUNE IN	6%	✓	✓
deezer	6%	✓	✓
napster	5%		✓

Apple recently announced its new Apple Music Voice plan, a less expensive subscription tier at \$5 a month for voice control-only access to the service's entire music catalog

Beyond the paid subscriber, a growing battleground in the digital music landscape will be the “Never Payers”: consumers who are interested in music services but not willing to pay

CURRENT PAID MUSIC SUBSCRIPTION OWNERSHIP,
U.S., 2021, % MUSIC LISTENERS¹



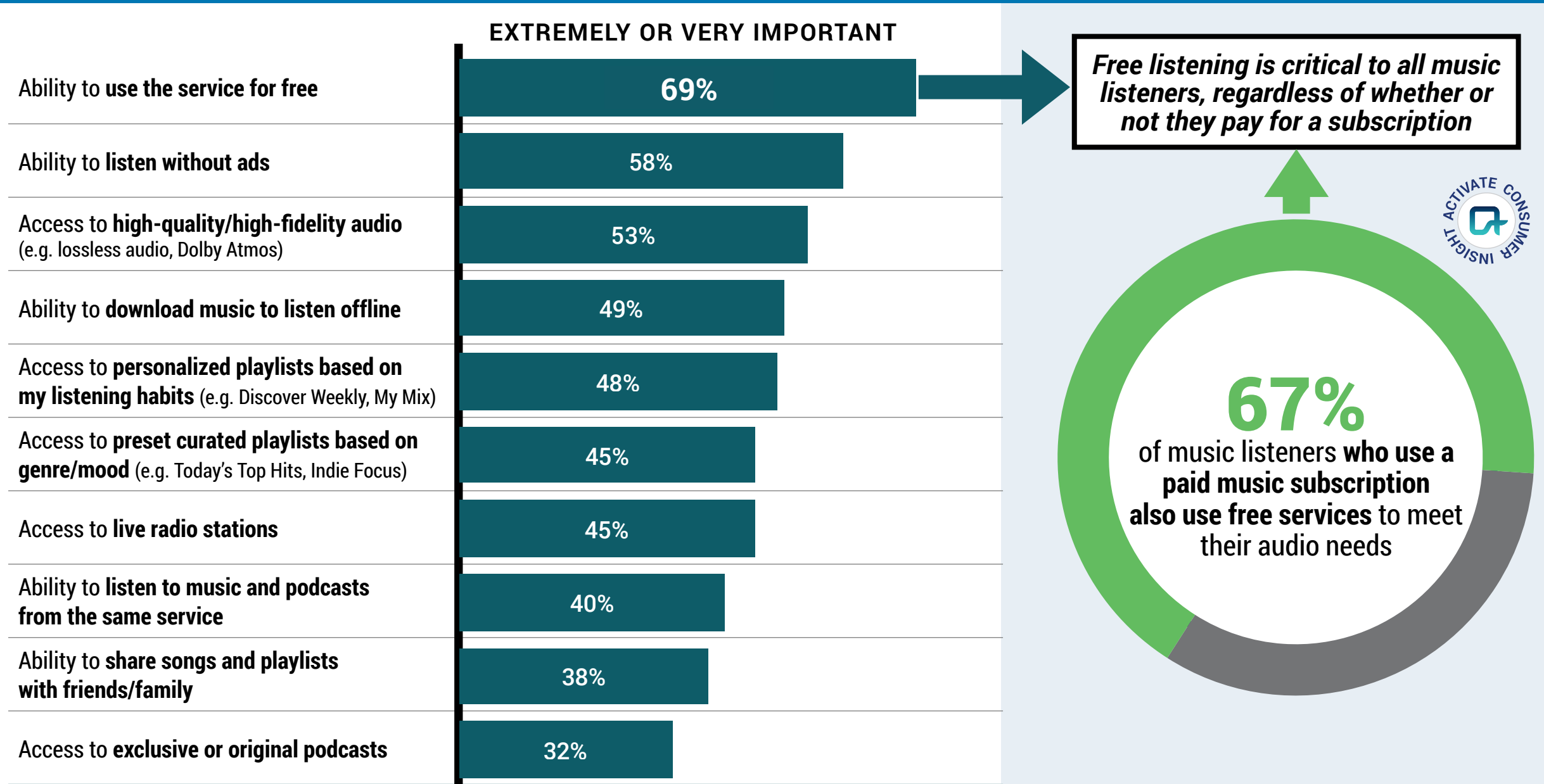
INTENT TO PAY FOR MUSIC SUBSCRIPTIONS IN THE NEXT
12 MONTHS, U.S., 2021, % MUSIC LISTENERS¹ WHO DO NOT
CURRENTLY OWN A PAID MUSIC SUBSCRIPTION



57M
music listeners will be
Never Payers² who
are only addressable
by free services

Free models hold significant growth potential across all music listeners; even those who pay for a music subscription also use free services

FACTORS THAT ARE IMPORTANT TO CONSUMERS WHEN CHOOSING WHICH MUSIC SERVICE TO USE, U.S., 2021, % MUSIC LISTENERS¹



Companies in the audio space are striving to become comprehensive audio platforms (directly or through partnerships) in order to address the growing set of consumer needs and interests – this trend will shape the rest of the audio ecosystem

OVERVIEW OF THE NEW AUDIO LANDSCAPE

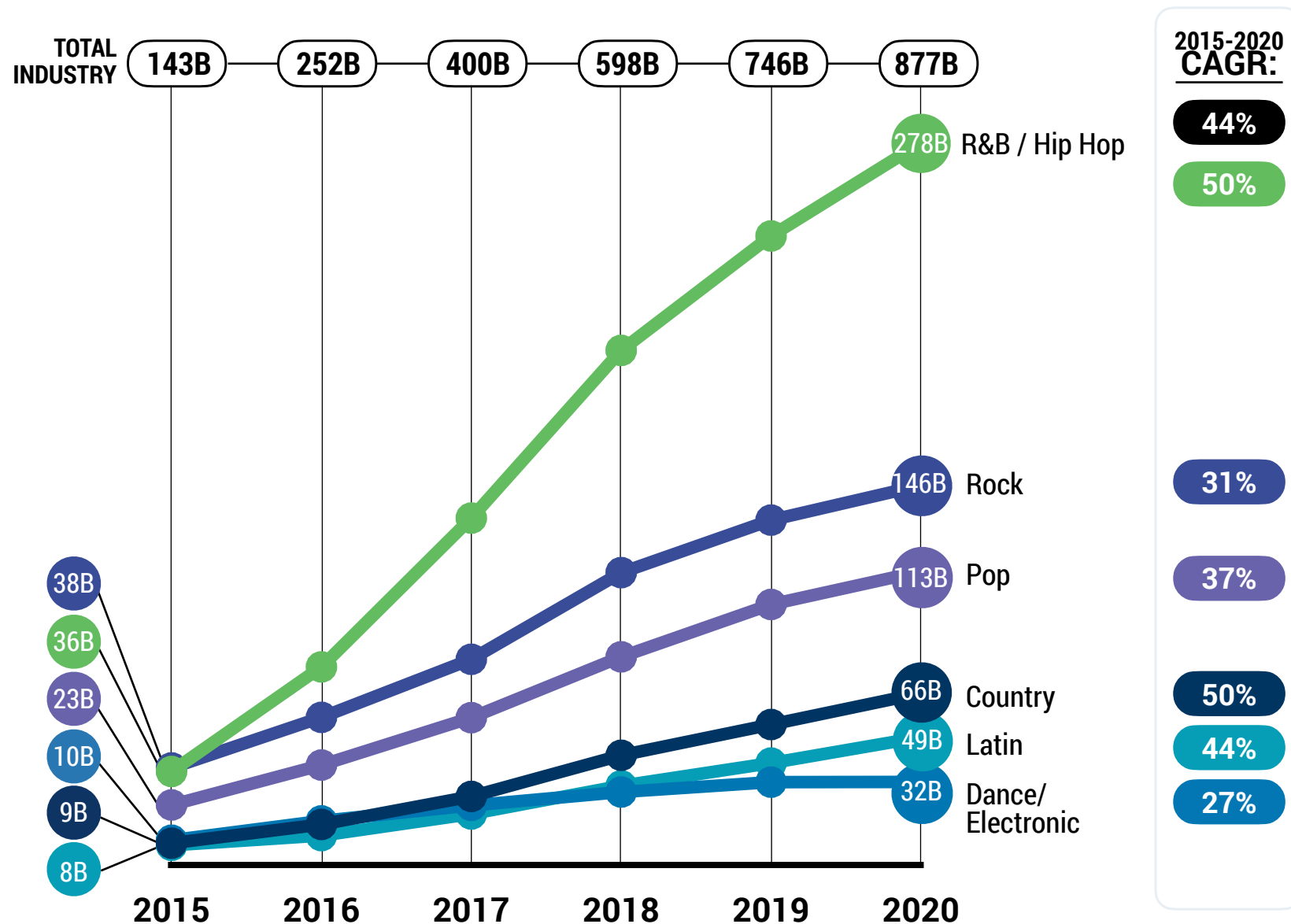


Note: Not exhaustive. Services may not be depicted in every category that is applicable. 1. Includes companies with assets across at least 5 of the 6 listed audio landscape elements. Companies include all subsidiaries (e.g. SiriusXM includes SiriusXM, Pandora, and Stitcher).
Sources: Activate analysis, Company sites

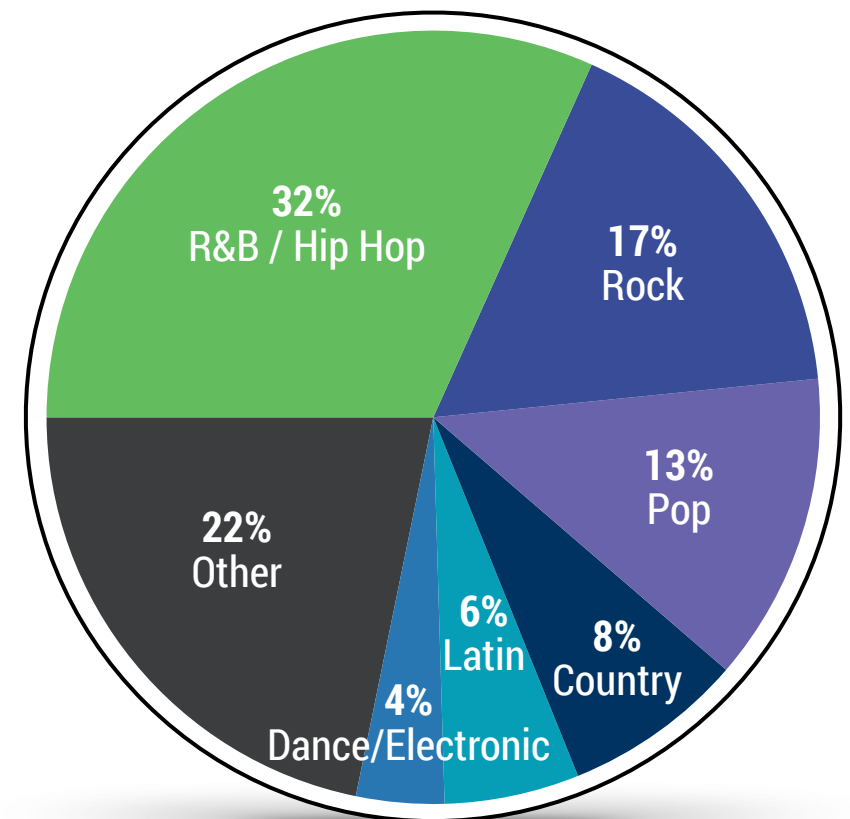


R&B / Hip Hop is the largest and one of the fastest growing genres for on-demand music streaming

ON-DEMAND AUDIO STREAMING BY GENRE^{1,2}, U.S., 2015-2020, BILLIONS STREAMS



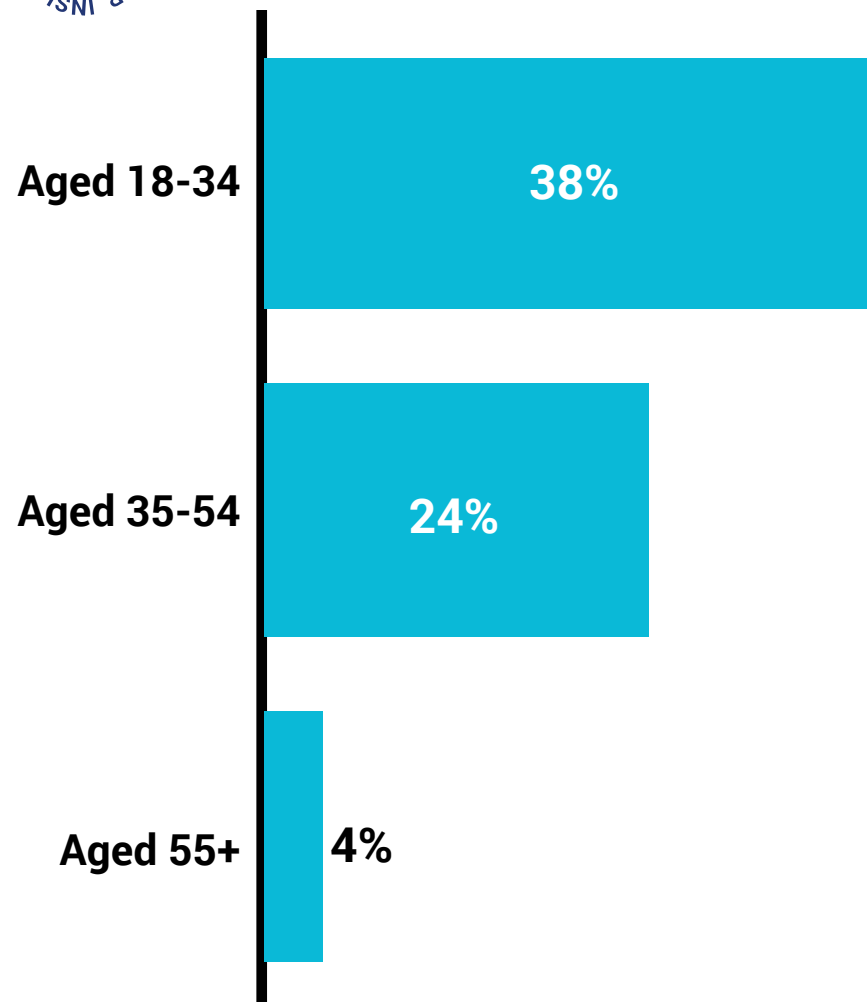
SHARE OF ON-DEMAND AUDIO STREAMING BY GENRE^{1,3}, U.S., 2020, % TOTAL STREAMS





TikTok's impact on the music landscape is profound, driving discovery and virality, particularly among younger users

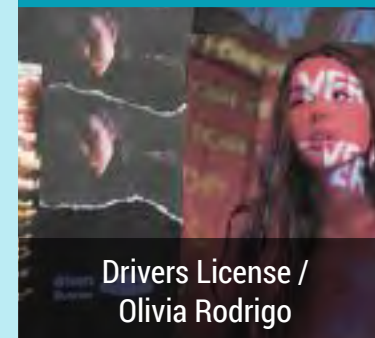
USAGE OF TIKTOK TO DISCOVER NEW ARTISTS/SONGS IN THE LAST 12 MONTHS BY AGE GROUP, U.S., 2021, % MUSIC LISTENERS¹



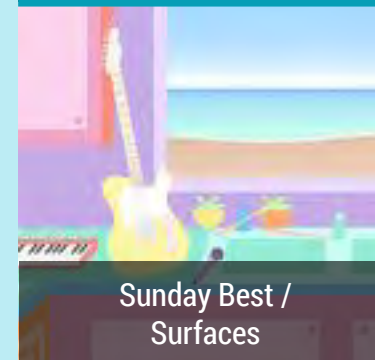
TikTok is well-positioned for music promotion and discovery, often launching new artists/songs to the top of the charts



After his song **Astronaut in the Ocean** went viral on TikTok, **Masked Wolf** signed a deal with **Elektra Records** in January 2021 – his re-released single **charted at #6** on the Billboard Hot 100



Disney star **Olivia Rodrigo** promoted her song **Drivers License** via a TikTok that has **62M views** – the song **charted at #1** and has been streamed **more than 1B times**

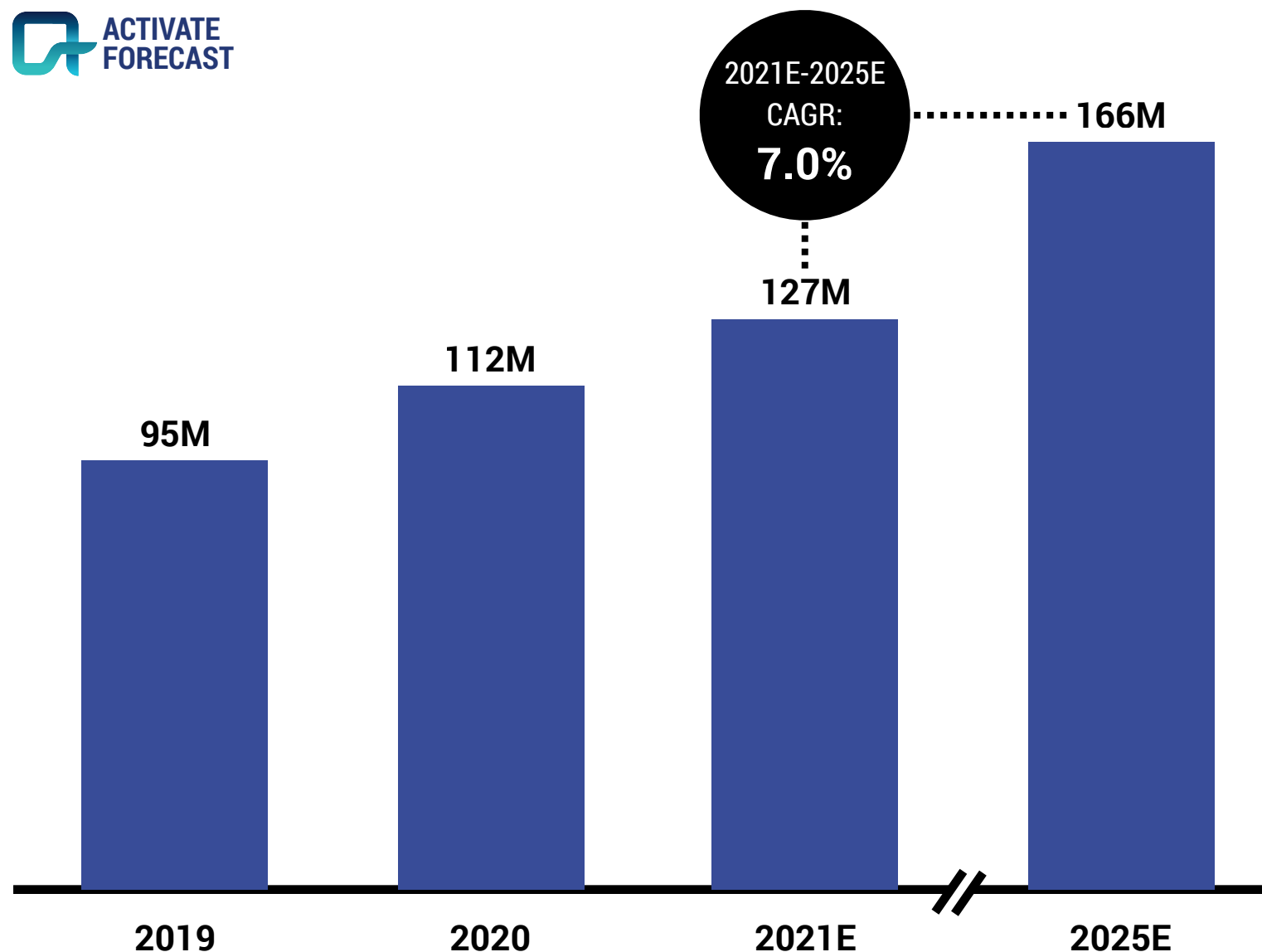


Surfaces' marketing firm **designed viral challenges, hired influencers, and added sound effects** to make **Sunday Best** more "TikTokkable" – the song now appears in more than **20M TikToks** and has over **700M streams on Spotify**



Podcasts are a core listening behavior for audio platforms to address, with significant user and engagement growth potential

**MONTHLY PODCAST LISTENERS,
U.S., 2019-2021E VS. 2025E, MILLIONS LISTENERS AGED 12+**



DRIVERS OF PODCAST GROWTH

Widespread inclusion of podcasts in music services

Consumers will increasingly use their music services to access podcasts as audio platforms integrate spoken-word content and exclusive podcasts

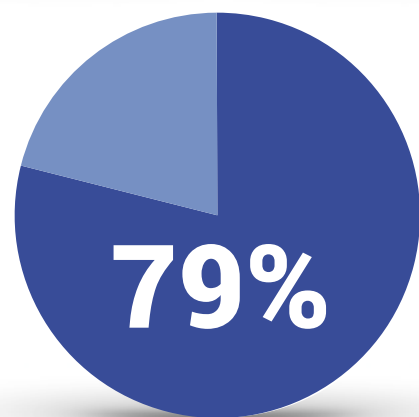
Growth of podcast-native content and lower barriers to entry for creators

The proliferation of podcast content from all types of creators will draw additional viewers to the audio medium

Connections/integrations with other media formats

Podcasts that tie to other media formats (e.g. as shoulder content) will continue to attract new audiences






















As consumers look to have their music and podcast needs served by the same service, major audio platforms are investing in podcast programming to acquire, engage, and retain users











of music/podcast listeners¹ use the same service to listen to both music and podcasts





SELECT PODCASTING ACQUISITIONS BY MAJOR AUDIO PLATFORMS

Audio Platform	Acquisitions
 Spotify	 Anchor (2019)  Gimlet (2019)  Parcast (2019)  The Ringer (2020)  Megaphone (2020)  DoDz (2021)
 Amazon	 Wondery (2020)  Art19 (2021)
 iHeartMedia Inc	 Stuff (2018)  Voxnest (2020)  Triton (2021)
 SiriusXM Satellite Radio	 Simplecast (2020)  Stitcher (2020)
 Apple	 Scout24 (2020)
 Google	 60 dB (2017)

PODCAST STRATEGIES

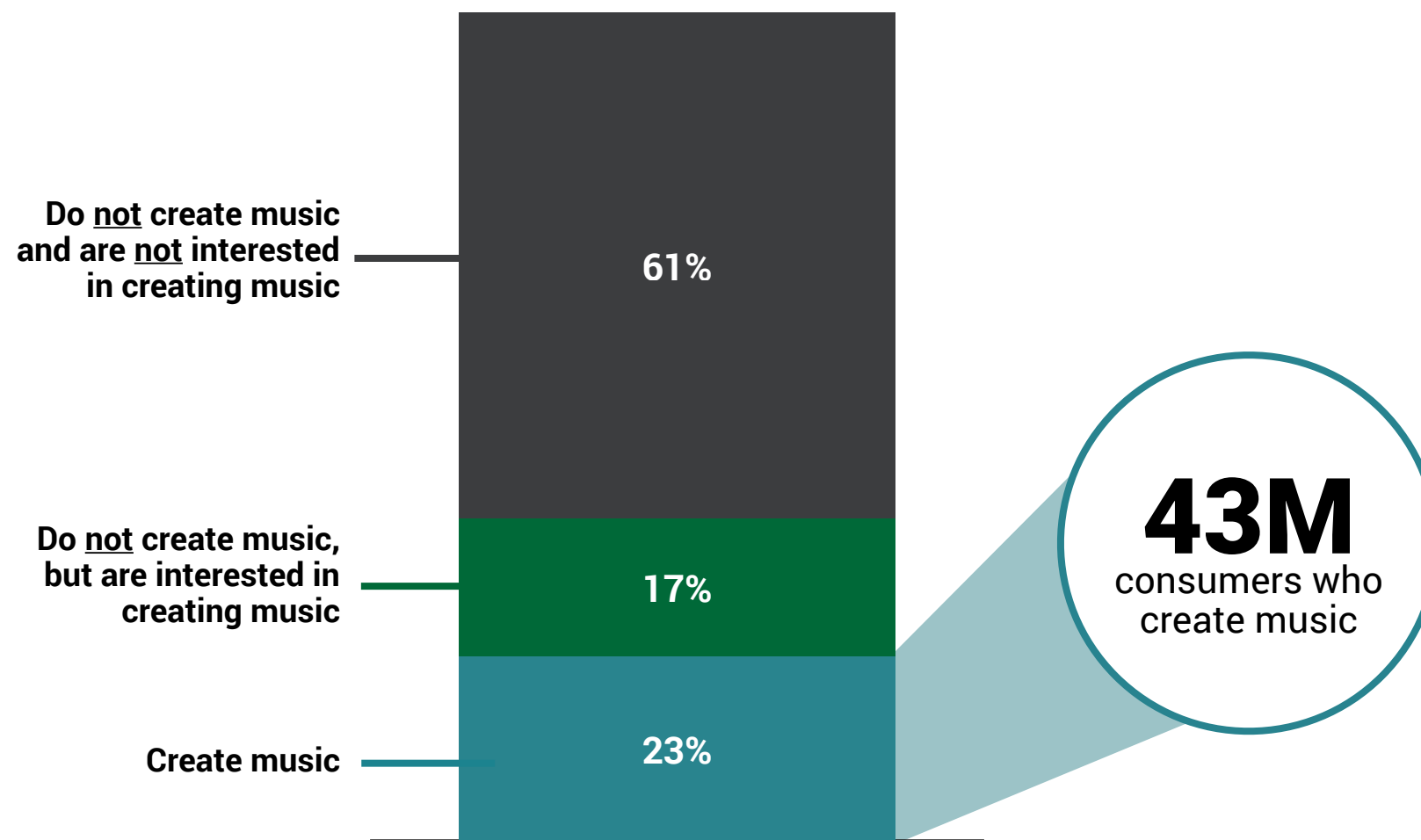
 Spotify EXCLUSIVE CONTENT: Spotify has pursued a notably aggressive content acquisition strategy, signing exclusive deals with well-known creators	 BARACK AND MICHELLE OBAMA Multiple podcasts June 2019
 Spotify JOE ROGAN "The Joe Rogan Experience" May 2020	 KIM KARDASHIAN WEST Podcast on criminal justice June 2020
 ALEXANDRA COOPER "Call Her Daddy" June 2020	 BRENE BROWN Multiple podcasts September 2020
 PRINCE HARRY & MEGHAN MARKLE Multiple podcasts December 2020	 DAX SHEPHARD "Armchair Expert" May 2021

SUBSCRIPTION OFFERINGS:  Spotify  Apple
 Spotify and Apple have recently expanded their offerings to support podcast subscriptions

OTHER CONTENT DEALS:  Amazon  SiriusXM
 Amazon and SiriusXM have acquired non-exclusive content — Amazon made a multi-million dollar deal for the SmartLess podcast in June 2021, and SiriusXM acquired Roman Mars's 99% Invisible podcast in April 2021

40% of music listeners create or are interested in creating music

MUSIC CREATION AND INTEREST IN MUSIC CREATION¹, U.S., 2021, % MUSIC LISTENERS²



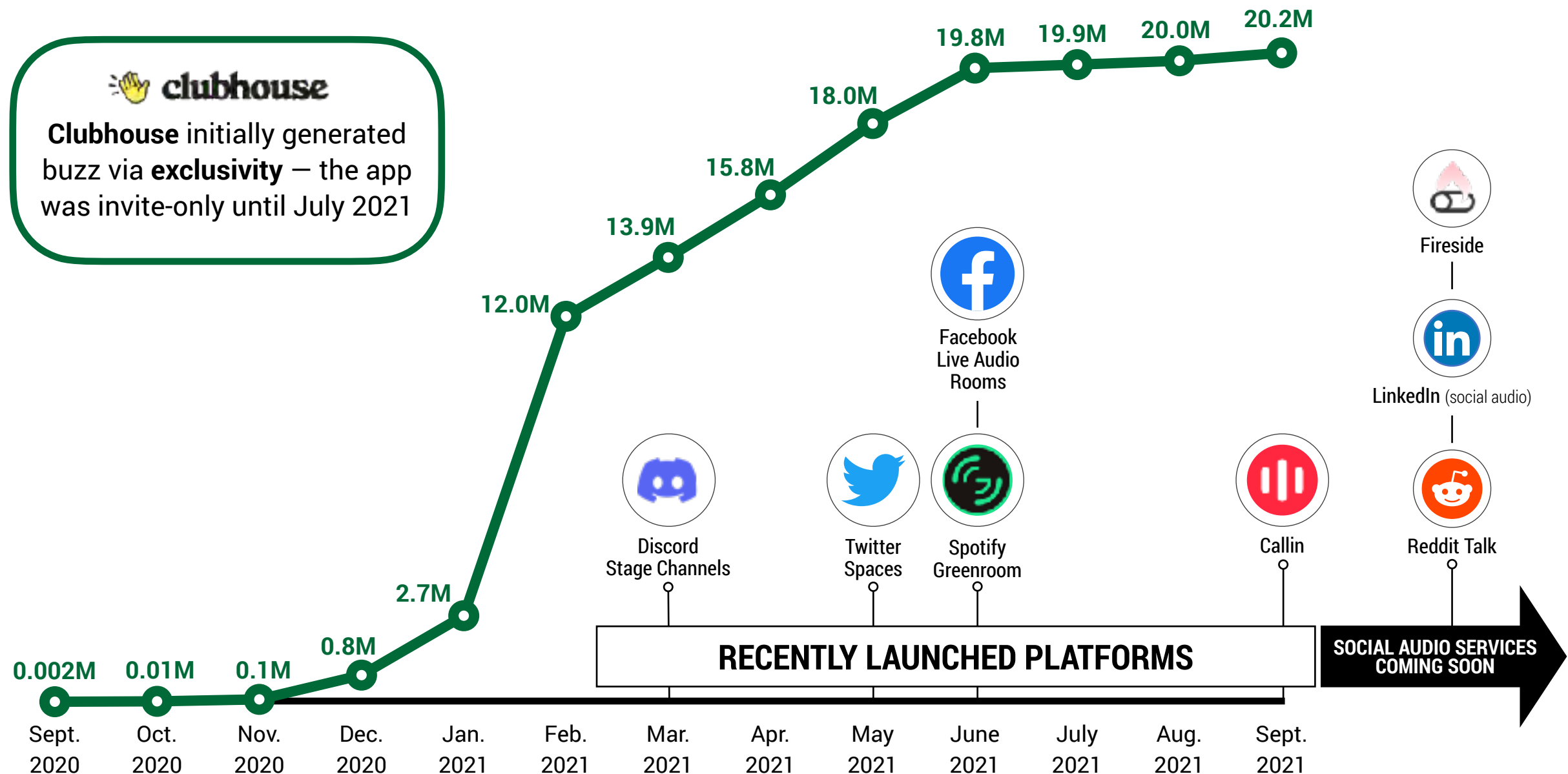
1. Figures do not sum to 100% due to rounding. 2. "Music listeners" are defined as adults aged 18+ who spend any time listening to music.

Sources: Activate analysis, Activate 2021 Consumer Technology & Media Research Study (n = 4,018), U.S. Census Bureau










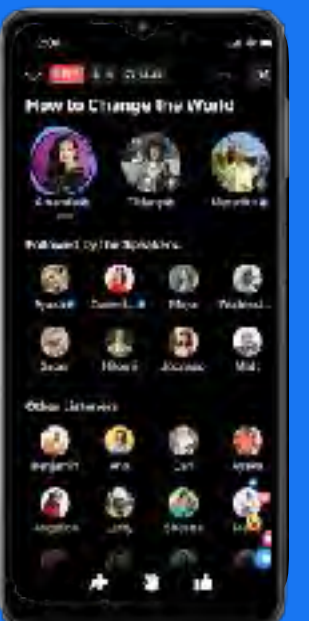



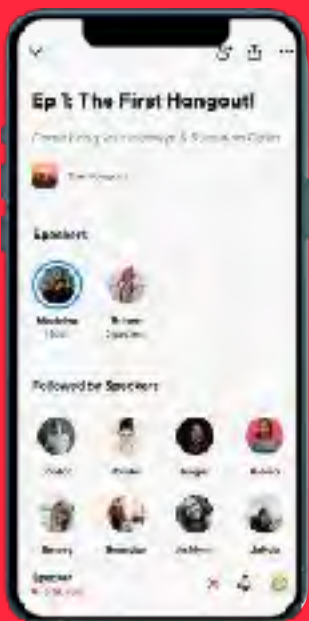
Clubhouse's rapid growth will be the catalyst for the social/live audio phenomenon

CLUBHOUSE MONTHLY ACTIVE USERS, GLOBAL, SEPT. 2020-SEPT. 2021, MILLIONS MONTHLY ACTIVE USERS



Social/live audio will become a mainstream consumer behavior as social platforms and streaming services follow Clubhouse's lead

SELECT SOCIAL/LIVE AUDIO PLATFORMS

 <p>CLUBHOUSE</p> <p>LAUNCHED APRIL 2020</p>  <p>As the first major player in the social/live audio landscape, Clubhouse allows users to join live audio rooms based on their interests — the service recently introduced a new feature, "Wave," to facilitate smaller, closed chats</p>	 <p>DISCORD STAGE CHANNELS</p> <p>LAUNCHED MARCH 2021</p>  <p>Discord released their Stage Channels live audio event offering, along with the Stage Discovery event portal, as an additional way to highlight the platform's interest-based communities</p>	 <p>TWITTER SPACES</p> <p>LAUNCHED MAY 2021</p>  <p>Twitter Spaces offers live audio rooms with features to promote audience engagement (e.g. emoji reactions) as well as to help creators monetize their content (e.g. paid events through Ticketed Spaces)</p>	 <p>FACEBOOK LIVE AUDIO ROOMS</p> <p>LAUNCHED JUNE 2021</p>  <p>Facebook launched its Live Audio Rooms to allow select public figures and Groups to host audio events — users can give reactions and send Stars (monetary tips) to creators to engage with the content</p>	 <p>SPOTIFY GREENROOM</p> <p>LAUNCHED JUNE 2021</p>  <p>Spotify Greenroom leverages the acquisition of Betty Labs (and their live audio service Locker Room) to create a social/live audio offering that also allows users to record their events to distribute as podcasts</p>	 <p>CALLIN</p> <p>LAUNCHED SEPTEMBER 2021</p>  <p>Callin's platform combines social audio and podcasting — in addition to live audio rooms, users are able to record and edit their conversations for release as podcasts</p>
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We expect to see new audio integrations and partnerships with video, gaming, connected devices, and more

SELECT AUDIO INTEGRATIONS AND PARTNERSHIPS



STREAMING

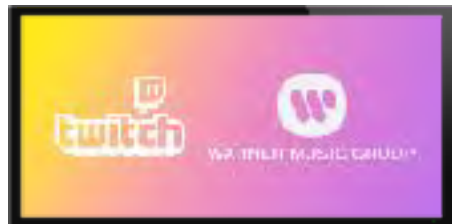
Twitch / MUSIC LABELS & DISTRIBUTION SERVICES

Twitch has partnered with various music labels and distribution partners to create **Soundtrack by Twitch**, enabling creators to integrate a library of rights-cleared music into their streams



WARNER MUSIC GROUP

Twitch's recent partnership with Warner Music Group (WMG) will **launch new artist channels and a music-centric WMG space** with professionally-produced content, bringing users new ways to interact with music-related content and **providing artists with a more direct connection to fans**



VIDEO GAMING

Discord / Spotify

Spotify's integration on Discord **promotes music discovery and distribution** by allowing Discord users to connect their Spotify account to **share songs with friends, display what they are listening to, and listen to music together**



VIDEO GAME PUBLISHERS / monstercat

Monstercat, an electronic music record label, has leveraged gaming partnerships to drive streams and discovery, with integrations into games such as **Fortnite, Rocket League, Roblox, and Beat Saber**



CONNECTED DEVICES

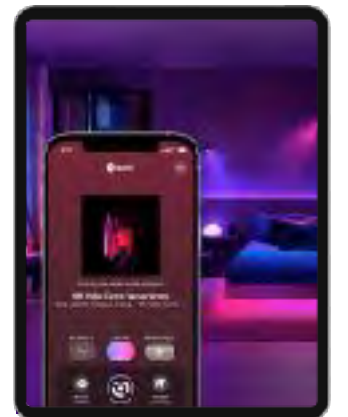
PELOTON / Spotify

Peloton's ongoing partnership with **Spotify** allows users to **take classes set to music from select Spotify playlists** (e.g. "Disney Hits," "Hot Country," "We Everywhere")



PHILIPS / Spotify

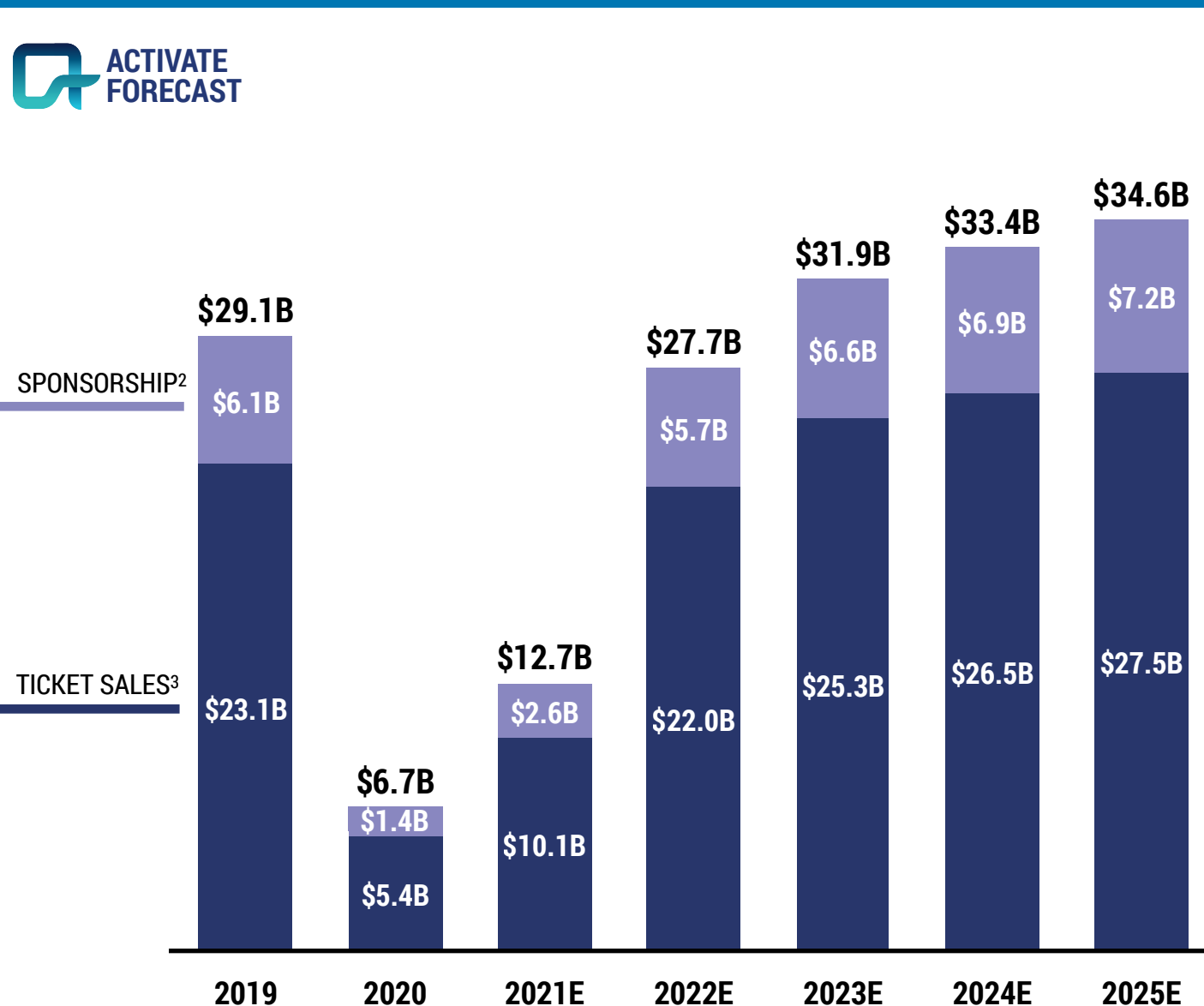
The **Philips Hue lighting system** offers a new **Spotify integration**, adjusting its effects according to users' music and **creating a unique experience accounting for tempo, mood, volume, and genre**





With pent-up consumer demand for in-person events, we forecast that the live music industry will return to pre-COVID-19 levels by 2023

IN-PERSON LIVE MUSIC REVENUE BY TYPE¹, GLOBAL, 2019-2025E, BILLIONS USD



2019-2025E
CAGR:

2.9%

3.0%

2.9%



1. Figures do not sum due to rounding. 2. "Sponsorship" includes revenue from sponsorship of live music events (advertising spending). 3. "Ticket sales" include revenue from consumer spend on tickets to live music events. Does not include revenue from merchandise or concessions. 4. "Music listeners" are defined as adults aged 18+ who spend any time listening to music. Sources: Activate analysis, Activate 2021 Consumer Technology & Media Research Study (n = 4,018), PricewaterhouseCoopers, Statista



Livestreamed events will continue to be important to fans, even after they return to attending in-person concerts

LIVESTREAMED VIRTUAL EVENTS LANDSCAPE AND NOTABLE CONCERTS



31% OF MUSIC LISTENERS¹
EXPECT TO ATTEND A CONCERT OR MUSIC
FESTIVAL **ONLINE** IN THE NEXT 12 MONTHS

LIVESTREAMED VIRTUAL EVENTS PLATFORMS

SOCIAL MEDIA



AUDIO SERVICES



VIDEO SERVICES



PURPOSE-BUILT



NOTABLE CONCERT LIVESTREAMS

LIVE
X LIVE



iHeart Country Festival
(October 2021)

LIVE
NOW



Dua Lipa Studio 2054
(November 2020)

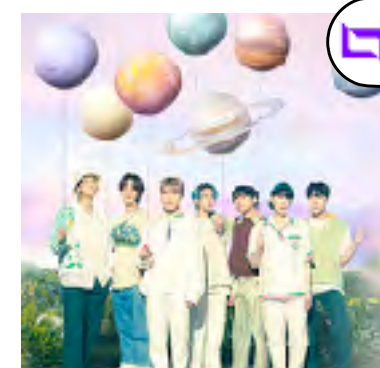
Dua Lipa's
Studio 2054
performance
reported a **global
audience of 5M+**

TOMORROWLAND



**Tomorrowland –
Around the World**
(July 2021)

VENEWLIVE



BTS Muster Sowoozoo
(June 2021)

BTS's two-day
livestreamed
event drew
1.3M viewers
and earned
over **\$71M**

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A new set of innovative companies is creating capabilities that help enterprises offer technology-enabled consumer experiences and data-based productivity improvements



A wave of innovation and data science capabilities enable **enterprises to leverage data, information, and technology in the same way major technology companies do** — in particular, systematically using data in decision making across the entire organization



The ability to combine these capabilities is accelerating the development of the **next generation of improvements to end-user experiences** (e.g. autonomous vehicles, predictive transactions, evidence-based medicine, automation, space travel)



Innovations in storage, compute, and connectivity from a new set of companies are the foundational building blocks being leveraged to accelerate these capabilities



These companies, many of which were launched in the last 5-10 years, are scaling at breakneck speeds, fueled by an **accelerating investment cycle in venture capital and private equity**



Their offerings impact all facets of enterprises (e.g. IT, HR, finance, sales & marketing) to **enable increased productivity and elevated end-user experiences**

We expect that the continued growth of these companies, and the emergence of other companies in the space, will be a major driving force for the technology sector in the coming years. Every week, new players announce rounds of funding in the hundreds of millions.


This wave of innovation is helping enterprises unlock significant operational and financial performance improvements, while developing the B2B and B2C experiences of the future

EXAMPLES OF ENTERPRISE PERFORMANCE IMPROVEMENTS ENABLED BY INNOVATION

ACCELERATE DEVELOPMENT OF NEW CUSTOMER EXPERIENCES



Allow all enterprises to create new B2B & B2C customer experiences faster and innovate at the speed of technology companies



Simulate and pilot new ideas and products at a lower cost to remove barriers to customer experience breakthroughs

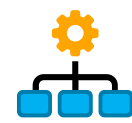


Leverage customer data and insights to integrate a better understanding of customers into the innovation process


CREATE BETTER EMPLOYEE EXPERIENCES (FASTER, LESS BUREAUCRATIC PROCESSES)



Enable simpler unification of data, IT infrastructure, and security protocols across the enterprise



Empower greater collaboration throughout enterprises by centralizing learnings and providing more reliable connectivity




Expedite employee onboarding processes with intuitive identity and security management and improved training processes


IMPROVE BUSINESS INTELLIGENCE AND DECISION MAKING



Enhance business planning and forecasting through capture of greater volume of data, improved processing speeds, ease of database organization, and user-friendly visualization




Harmonize data across different functions through centralized databases to drive planning throughout the entire organization



Leverage improvements in connectivity and computing power to improve robustness and accuracy of scenario planning and optimization


IMPROVE OPERATIONAL AND FINANCIAL EFFICIENCY (e.g. SG&A, SALES & MARKETING)



Automate legal, HR, and administrative tasks to enable greater efficiency, increase security, and reduce time spent on easily repeatable processes



Improve accounting and finance processes through data capture and structure refinements to provide real-time insights and more informed business decisions



Achieve greater sales efficiency and lower cost of customer acquisition through improved customer targeting and pipeline management

The growing ecosystem that is driving this innovation across new infrastructure, tools, and applications is led by a new generation of companies (beyond the major technology companies)



INDIVIDUAL ENTERPRISE APPLICATIONS

MARTECH / ADTECH / AD-OPS



CUSTOMER EXPERIENCE



FINANCE



HR & ADMINISTRATION



ECOMMERCE



SUPPLY CHAIN

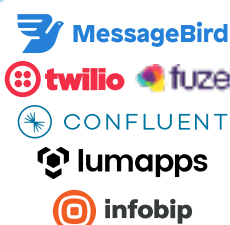


LEGAL / COMPLIANCE



CROSS-ENTERPRISE TOOLS

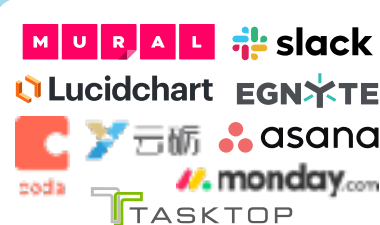
COMMUNICATION



PLANNING / BUSINESS INTELLIGENCE



COLLABORATION



DEVELOPER TOOLS



RPA¹



IDENTITY & ACCESS



AR/VR



DATA & INFRASTRUCTURE

STORAGE



SECURITY



DATABASES



DATA ANALYTICS



CLOUD SERVICES / PLATFORMS

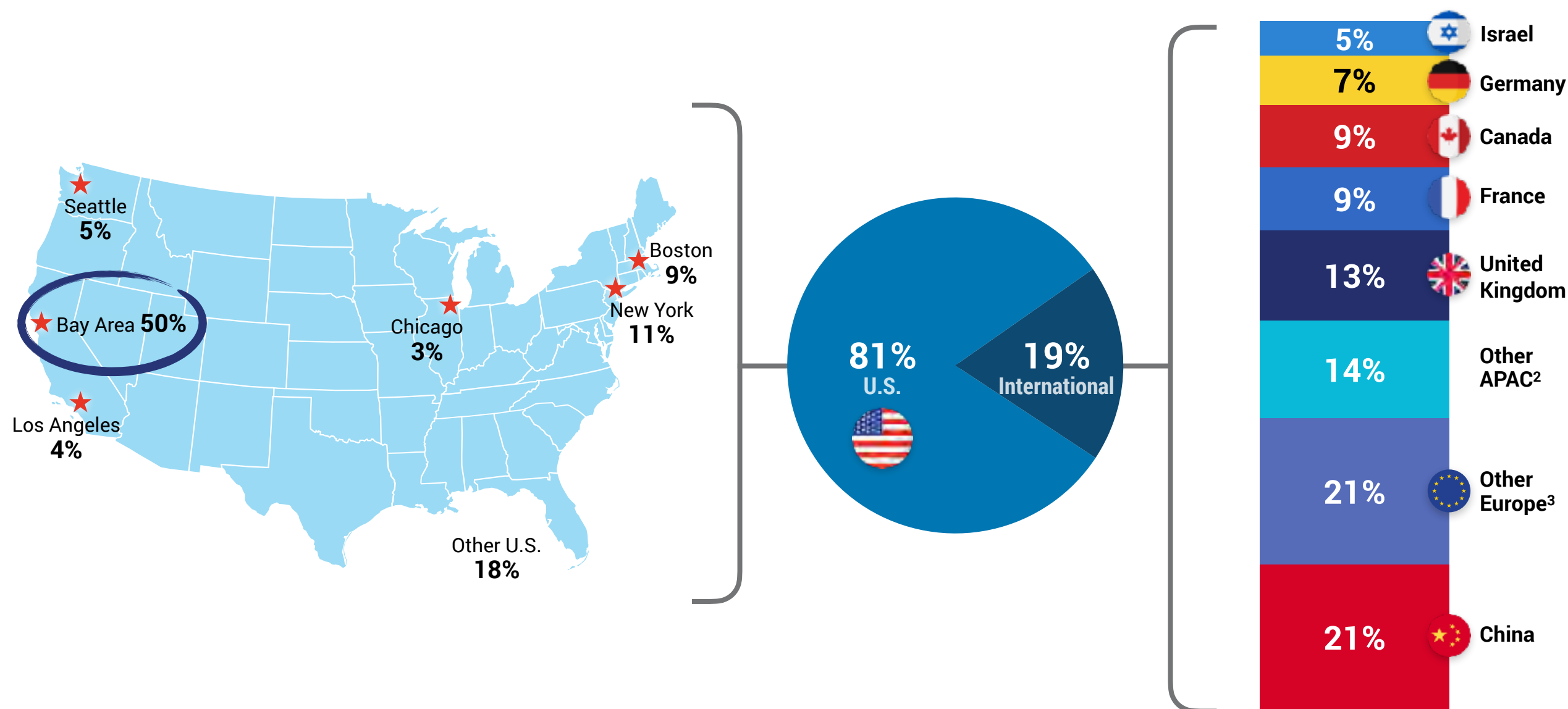


HARDWARE²



Over 80% of these new companies are U.S.-based, half of which are headquartered in the Bay Area








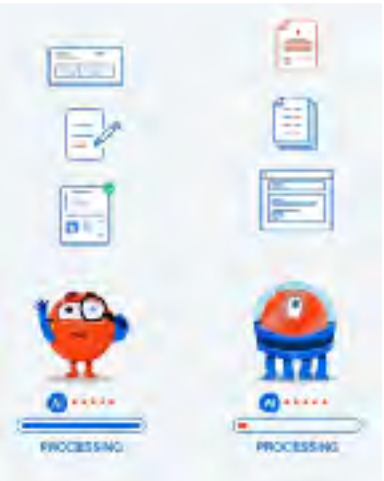


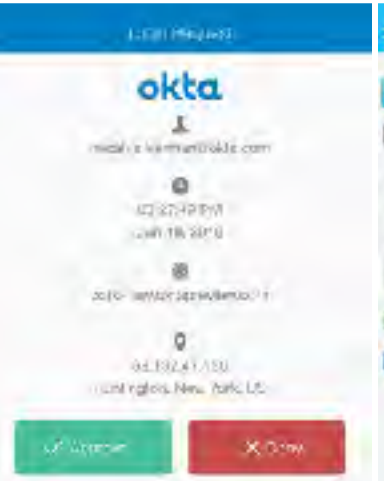

ENTERPRISE SOFTWARE COMPANIES FOUNDED SINCE 2005 BY HEADQUARTERS LOCATION¹, GLOBAL, 2021, % COMPANIES



1. Includes set of 299 enterprise software companies founded since 2005 with at least \$100M in total disclosed capital raised. Figures do not sum to 100% due to rounding. 2. Includes companies with headquarters in Australia, India, Japan, and Singapore. 3. Includes companies with headquarters in Belgium, Denmark, Finland, Ireland, Spain, Switzerland, and the Netherlands. Sources: Activate analysis, Company sites, Crunchbase

Many of the companies in the new ecosystem have scaled at an unprecedented pace, creating tens of billions of shareholder value, new enterprise capabilities, and end-user value









EXAMPLE COMPANIES IN THE ENTERPRISE SOFTWARE ECOSYSTEM

	EMPLOYEE & CUSTOMER EXPERIENCE	ROBOTIC PROCESS AUTOMATION	SECURITY ²	COMMUNICATION	IDENTITY & ACCESS MANAGEMENT ²	DATA STORAGE
						
LAUNCH:	2003	2005	2007	2008	2009	2012
IPO:	2012	2021	2018	2016	2017	2020
MARKET CAP ¹ :	\$123B	\$27B	\$36B	\$57B	\$37B	\$91B
	<ul style="list-style-type: none"> Enables enterprises to implement digital workflows to streamline and automate major processes across IT, HR, customer service, finance, and more Delivers improved employee and customer experiences while reducing costs 	<ul style="list-style-type: none"> Provides automation planning and execution of repeatable enterprise tasks Orchestrates and monitors automated processes through its centralized platform for efficient and error-free outcomes 	<ul style="list-style-type: none"> Provides fast and secure access to enterprise cloud resources through direct-to-cloud access and cloud-to-cloud connectivity Enables end users (employees, partners, customers) to securely access applications from anywhere 	<ul style="list-style-type: none"> Provides a central database for omnichannel customer communication (e.g. voice, text, chat, video, email) Enables secure, cross-platform communication with customers and employees 	<ul style="list-style-type: none"> Allows companies to manage user authentication for applications and build identity controls Offers single sign-on services, letting users log into systems with a centralized access point 	<ul style="list-style-type: none"> Unifies, structures, and provides governance and security for enterprise data at a low storage cost Connects and stores enterprise data for secure inter-company information sharing
						

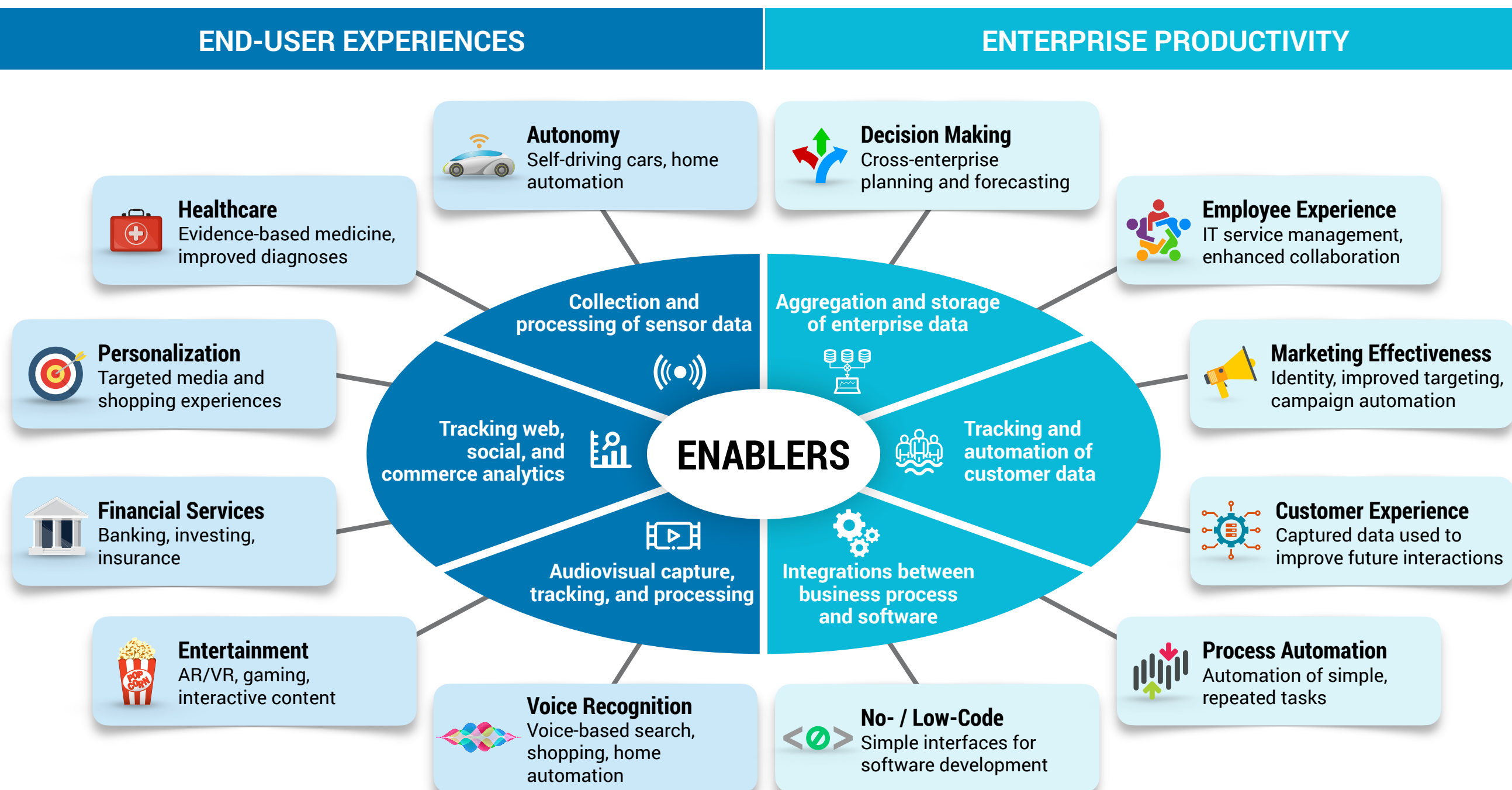
1. Market capitalization at market close on 9/30/21. 2. "Security" is the broad term describing the technology and processes used to protect information and digital assets against unauthorized access and risks, while "identity & access management" ensures that employees of an enterprise are able to access the software and devices that they need.
Sources: Activate analysis, Company sites, Yahoo Finance

Companies are capitalizing on major technological advances to create breakthrough capabilities

TECHNOLOGICAL BREAKTHROUGHS

PUBLIC CLOUD SERVICES	DATA STORAGE ADVANCEMENT	OPEN HARDWARE	OPEN-SOURCE SOFTWARE	HYPERSCALING	EDGE COMPUTING	5G	QUANTUM COMPUTING
<ul style="list-style-type: none"> • Plug-and-play access to scalable and unlimited compute and storage capacity without the need to deploy capital • Pay-per-use pricing model in alignment with upstart company cost requirements • Access to higher levels of functionality and security through utilization of cloud service offerings 	<ul style="list-style-type: none"> • Continuous improvement to cost of compute and storage, driven by growth in the cloud service provider landscape • Improvements in solid-state drives, with increasing speed, lower costs, and greater reliability • Global footprints of cloud providers fulfilling data localization requirements 	<ul style="list-style-type: none"> • Open-source hardware design (e.g. white-box servers) with lower cost of infrastructure and deployment versus branded gear • Enablement of highly scalable and efficient hardware • Highly customizable hardware that can be tailored to specific enterprise needs, use cases, and verticals 	<ul style="list-style-type: none"> • Containers and Kubernetes allowing for faster innovation through access to functional software modules operating on shared/cloud-based resources • Support of open-source ecosystems by large technology players allowing enterprises to more quickly build scalable and reliable products 	<ul style="list-style-type: none"> • Enablement of enterprises to access compute and storage resources of hyperscalers and emulate their compute, network, memory, and storage benefits (e.g. more easily searchable and queryable data, greater resiliency to scaling data demand needs) without capital costs 	<ul style="list-style-type: none"> • Increased computing power on edges (i.e. chip set innovation) and deployment of AI/ML capabilities enable enterprises' real-time localized data processing for faster decision making at lower cost 	<ul style="list-style-type: none"> • Faster decision making and higher productivity for enterprises due to scalable data flow at a much higher speed between the 5G core¹ and large numbers of connected devices in parallel 	<ul style="list-style-type: none"> • Ability to rapidly solve problems that cannot be simulated by classical computing processes (e.g. biological process modeling, financial options pricing) enabling faster innovation and more precise decision-making capabilities
KEY INNOVATORS 							

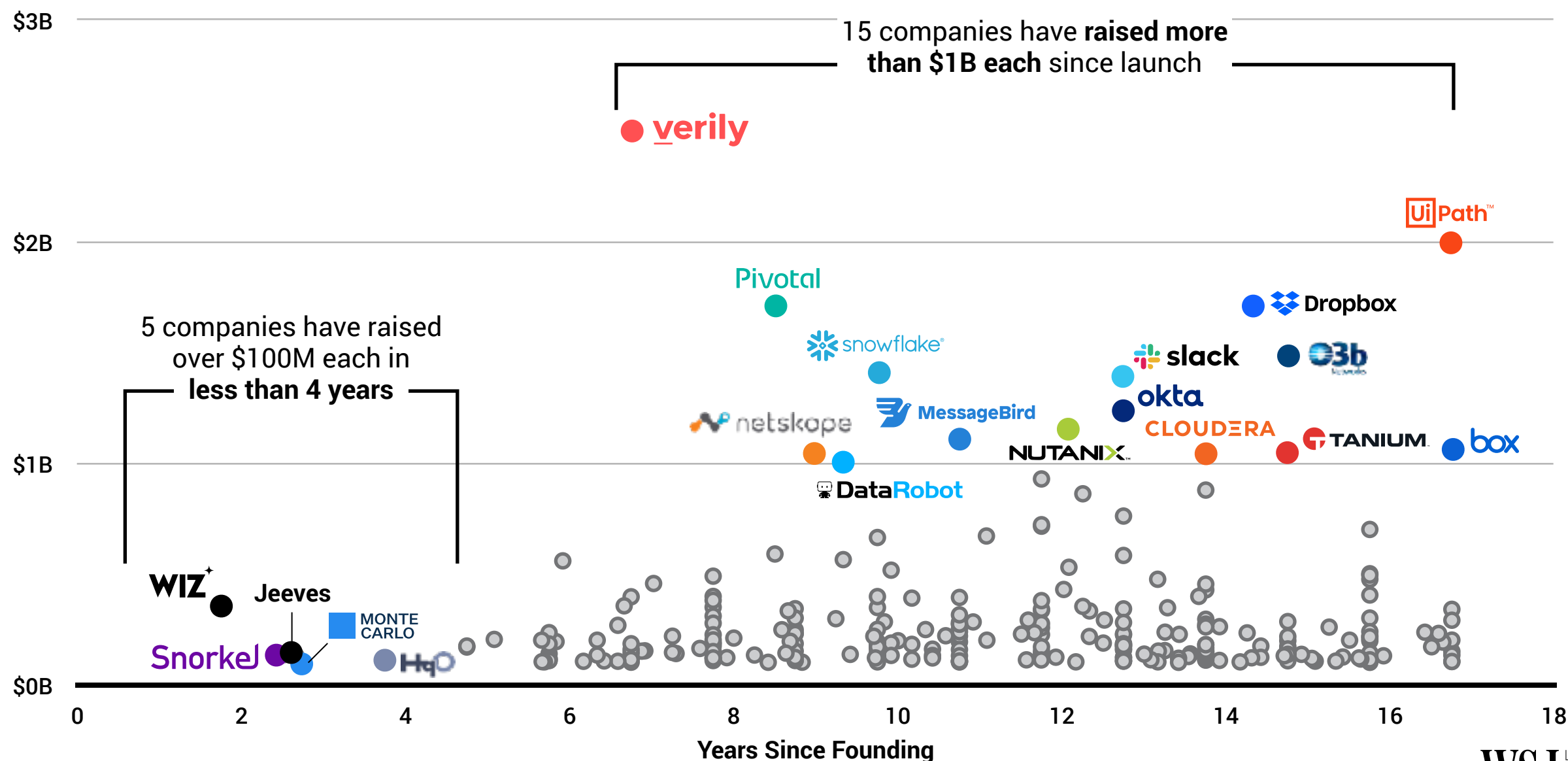
These innovations in data capture, processing, and analysis will be the core enablers of the next wave of user experiences and enterprise productivity improvements



Companies in the new ecosystem access very large amounts of funding extremely fast to fuel explosive growth and technological advances

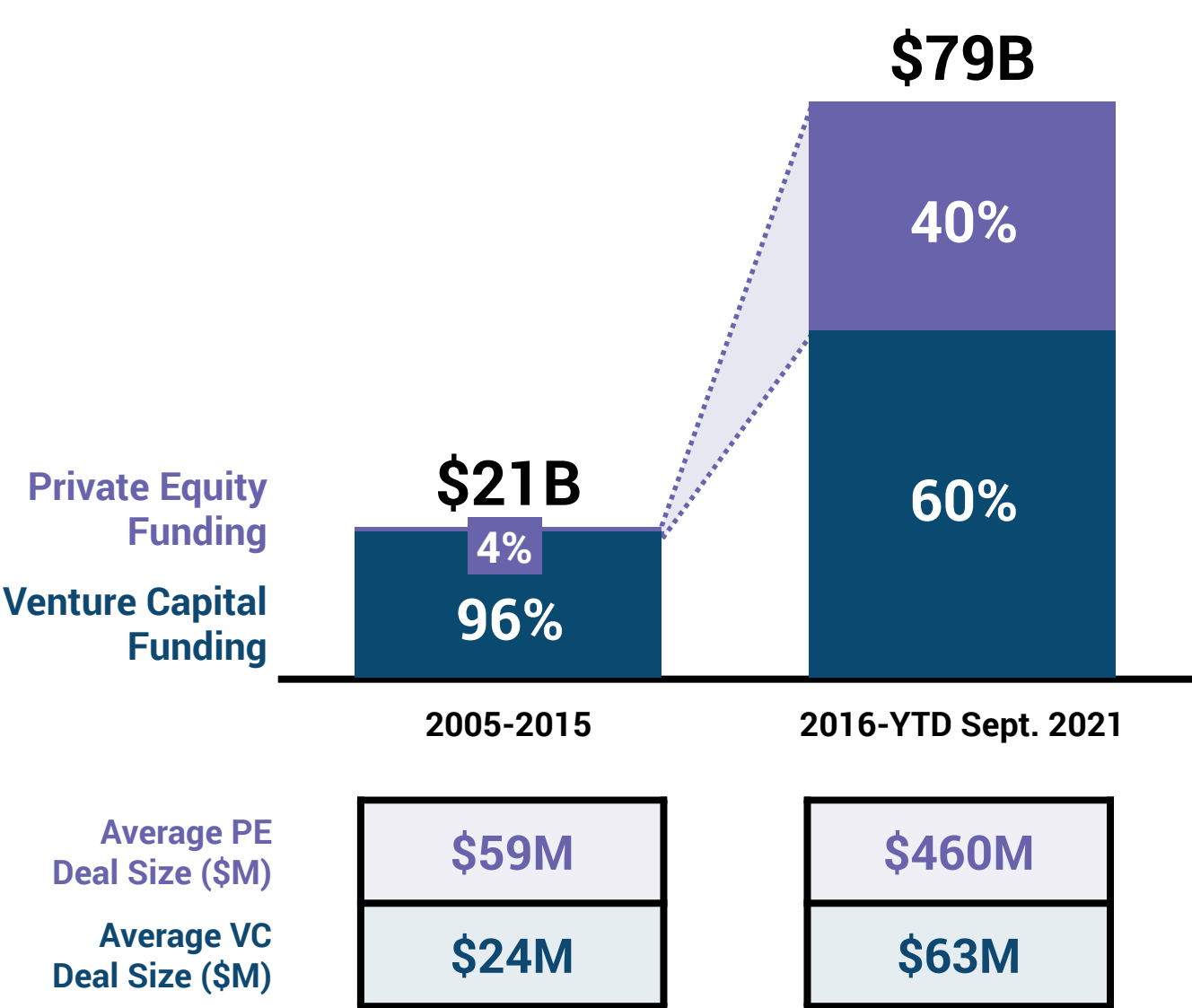
TOTAL DISCLOSED FUNDS RAISED BY ENTERPRISE SOFTWARE COMPANIES FOUNDED SINCE 2005¹,
GLOBAL, AS OF 2021, BILLIONS USD / YEARS SINCE FOUNDDING








Total Disclosed
Funds Raised (\$B)



The investment cycle is accelerating as private equity investors join venture capitalists, driving growing funding rounds

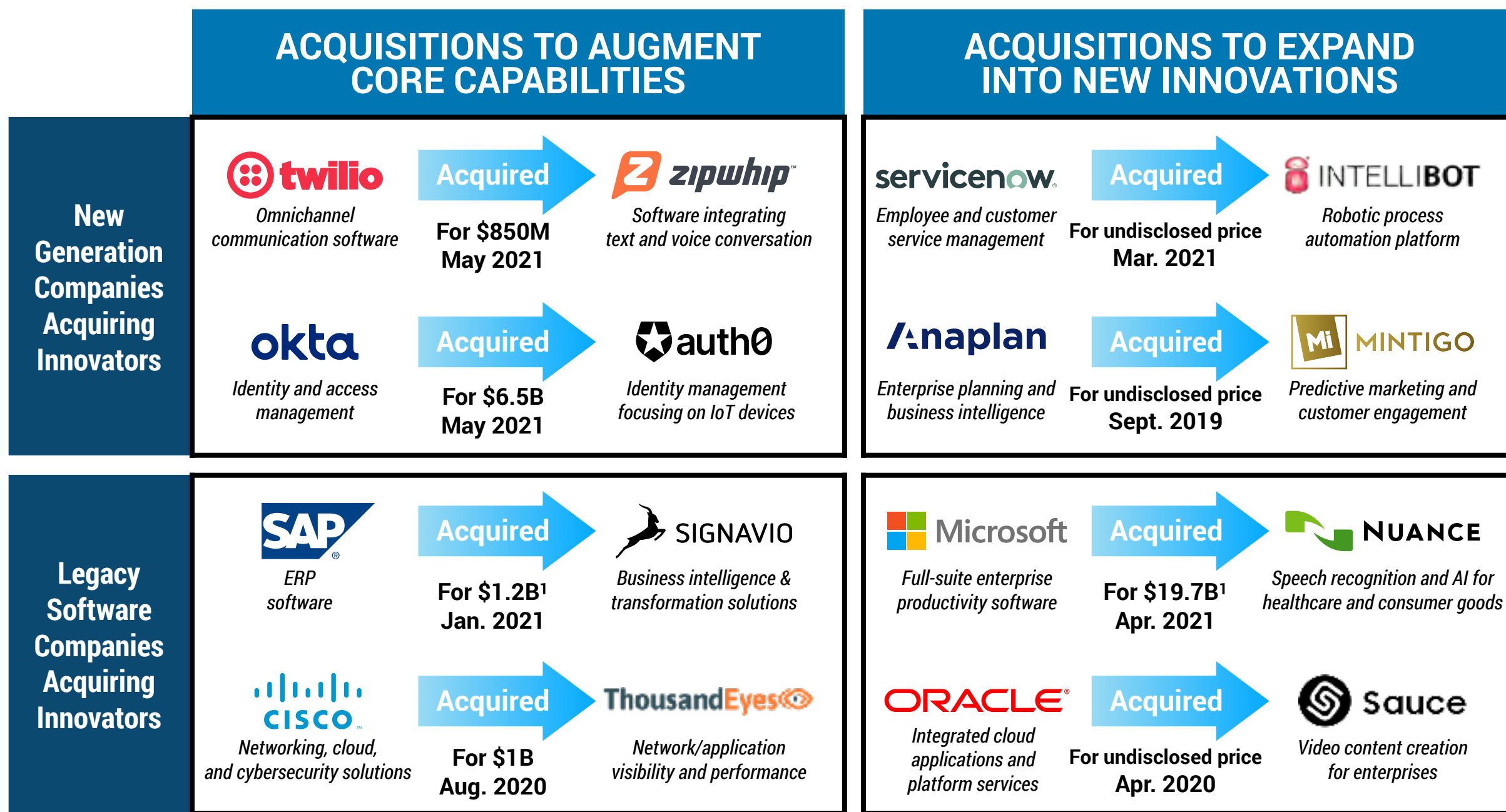
TOTAL DISCLOSED FUNDING AMOUNTS FOR ENTERPRISE SOFTWARE COMPANIES FOUNDED SINCE 2005 BY SOURCE¹, GLOBAL, 2005-2015 VS. 2016-YTD SEPT. 2021, BILLIONS USD / % TOTAL DISCLOSED FUNDING






Top Private Equity Investors in Enterprise Software		
Investor	Number of Deals ²	Average Deal Size ³
 VISTA EQUITY PARTNERS	9	\$1,048M
 INSIGHT PARTNERS	3	\$1,734M
 SILVERLAKE	3	\$625M
 TPG	3	\$289M
 KKR	2	\$300M
	2	\$200M
 JMI EQUITY	2	\$118M

1. Includes set of 299 enterprise software companies founded since 2005 with at least \$100M in total disclosed capital raised.
2. Number of deals with the firm indicated as a lead investor. 3. Does not include deals for undisclosed amounts.
Sources: Activate analysis, Company sites, Crunchbase, Pitchbook

We expect increased M&A activity given the competitive dynamics of the space, carried out by the major technology companies and scaled innovators



Key functional areas will need to be addressed for this set of next-generation companies to reach their full potential

AREAS OF FOCUS	MAJOR IMPERATIVES FOR GROWTH
 STRATEGY & TRANSFORMATION	<ul style="list-style-type: none">• Define the long-term strategies to convert early commercial success into defensible growth, including:<ul style="list-style-type: none">- Determine requirements to serve major current and potential customer segments- Align product roadmaps with customer needs- Assess operating and revenue models to improve growth defensibility- Evaluate diversification opportunities to future-proof growth• Create execution roadmaps to enhance long-term visibility and credibility for clients, employees, and investors<ul style="list-style-type: none">- Formulate the initiatives (organic, M&A, partnerships), timeline, and milestones- Evolve product-first start-ups into resilient and nimble organizations
 GO-TO-MARKET & PRICING	<ul style="list-style-type: none">• Develop pricing models — including packaging and bundling approaches — that align with customer value drivers to support customer acquisition and retention• Effectively engage channels, partners, and resellers to maximize market coverage and address customer needs
 SALES & MARKETING APPROACH	<ul style="list-style-type: none">• Define effective marketing strategies (e.g. narrative aligned with customer value drivers, effective marketing channel mix, events, customer engagement playbooks)• Structure effective sales force (e.g. goal-setting, incentives) and equip with winning sales playbooks (e.g. relevant lead funnels, critical prospect information, customer-centric sales approaches vs. product-centric)

Our 2022 data partners

ACTIVATE DATA PARTNERS

◀▶ Nielsen

comscore

MRC
DATA

▶ *tubular*

BUTTER WORKS

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- Digital strategy
- Strategic due diligence
- Consumer insights
- Customer segmentation
- Go-to-market
- Marketing optimization
- Salesforce activation
- Pricing
- Product strategy

Together, we can help you grow faster than the market and smarter than the competition.

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Kyler Meehan

Griffin Glenn

Karinya Ghiara

Phoebe Gould

George Levy

Joseph Sileo

Jonathan Homidan

Brigid Lynch

Caleb O'Brien

Cansu Seckin

Rachel Lunsford

Sonali Dane

Rebecca Federman

Taylan Tuncata

Ann Dockery

Danielle Koterbay

Justine Paolini

Miles Bock

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Christina Schoeller

Max Wills

Ryan Bush

Laura Miller

Annik Wolf

Frank Noto

Denise Shea

Stephen Corsello

Cassandra Wat

Edward Tolliver

Leah Collins

Sydney Frame